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ORIGINAL ARTICLES.

ON THE VALUE TO THE PHYSICIAN OF MODERN METHODS OF DIAGNOSIS.[1]

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ON THIS occasion I wish once more to express to you my thorough appreciation of the great honor which my election to the presidency of the Medical Society of the State of New York implied and to thank you heartily for this proud distinction.

The development of medical science has been so rapid that to those who have been in practice twenty or even fifteen years, who have not kept pace with the advances and the scientific movement, the language of the medicine of to-day is almost unintelligible. Indeed, medicine has been metamorphosed from an art into a science, to the everlasting credit of an unselfish profession and to the benefit of mankind.

Rational medicine requires for its successful practice a scientific foundation. It is not long since our methods of investigation were crude and faulty; instruments of precision were wanting and the many refinements of diagnosis which we now possess were either undiscovered or the few in use were to be found only in the larger universities. It gradually became evident, however, that to complete the education of the physician it was necessary to establish the laboratory (that true workshop of the physician) where he might study the conditions which exist in health; learn to appreciate the changes wrought by disease; gather lessons from the thorough study of physiological chemistry, and record many facts concerning the modification of perverted functions by the application of remedies. Without these object lessons many of the astounding advances of modern medicine could not have been made. By the aid of these, medicine has made greater progress during the past three decades than had previously been made in as many centuries.

The scientist must of necessity be a revolutionist. All things he must prove for himself. Richet has truly said, "By experiment and by science, medicine is compelled to march forward." This is as true to-day as it was in the time of Harvey and should prompt us to encourage in all fields of medicine, wherever permissible, original, painstaking experiment and the conscientious application of positive conclusions to the recognition and treatment of disease.

Unalterable and earnest in the belief that modern methods of diagnosis have proven themselves of the greatest advantage to the physician in the study of disease, and with a conviction deeply grounded, much against my will, that only a minority of the medical profession has adopted these refinements by the use of which medicine in its science becomes more and more exact, I have concluded on this occasion to address you "On the Value to the Physician of Modern Methods of Diagnosis."

The profession, as organized in our Society, has always represented a progressive element in medicine; has demonstrated its willingness to enlarge and enrich its field of usefulness and influence; has striven to disseminate knowledge far beyond the limits of our own State; and it is because of this encouraging past and the promising present which cements the past and the future that I bring this subject to your notice in order that our influence may be exerted in behalf of methods in diagnosis which rest on a scientific foundation and which prove, when impartially reviewed, to be of inestimable value to the suffering.

We are not to rest content with the uncertain methods of our forefathers, which seemed to them, as they seem to many to-day, to unearth the entire truth, but with Lessing we must proclaim, "Not the bare truth which everybody possesses, or thinks he possesses, but the earnest endeavor which he has made to understand the whole truth—to get at the foundation of it—makes the worth of a man. For it is not through its possession, but rather through the search for the truth that his powers are enlarged, which alone make for his growth toward perfection. Possession makes him quiet, indolent, proud." Ours is a profession which can ill afford to be satisfied with possession which makes it innocuous and proud. Ours is the task of blasting in the quarries of the unknown, where are hidden innumerable precious truths awaiting development. Thus may our art "gain the reach and certitude of sway over disease which we all yearn for it to possess."

Sir Michael Foster has recently said, "The phenomena of disease, being phenomena of living beings, present themselves in most, if not in all cases, as problems, as mixed problems of physics, chemistry, and biology, to be grappled with by the doctor as they are grappled with by the physicist, the chemist, and the biologist." To this quotation, I add the words of our own philosopher and pathologist, Welsh, recently given to the profession at the Virchow dinner: "General pathology must call to its service not only morbid anatomy, but also experimental and clinical medicine;

[1] President's address delivered at the ninety-sixth meeting of the Medical Society of the State of New York, Albany, Jan. 28-30, 1902.

nor is practical medicine to be founded upon pathological anatomy and general pathology alone, important as they are to the physician in many ways. Clinical medicine, as well as every other department of medicine, must be investigated by itself, deriving, as should every science, all the aid it can from allied sciences."

Our appreciation of clinical diagnosis by means of microscopic and chemical methods is well demonstrated by the hearty welcome with which the original work of Von Jaksch and later the volume of Simon's, both on clinical diagnosis based on newer methods, were received by the progressive internists. We were eager for more exact knowledge—for science to aid us in our art. The statement by Simon, that "Diagnosis is now the password in medical science," needs to be realized by many who continue satisfied with the uncertain methods of the past. The value of the application of the knowledge of physiological chemistry to the recognition of disease is splendidly illustrated by the certainty with which many diseases of the stomach and intestines are thereby recognized. Here I may be permitted to quote from a former address: "With the discovery of free hydrochloric acid in the gastric mucus by Prout in 1824, and the demonstration of pepsin by Schwann in 1836, the first data for an ultimate and more thorough understanding of the physiological and chemical functions of the stomach were given. These discoveries, with those of Reaumur and Spallanzani, formed the foundation upon which ultimate gastric pathology was to rest, and upon which a structure has been erected to which modern medicine points with just pride.

"'The way to pathology is through physiology,' says Ewald, and the more we deal with this subject, the firmer is the truth of that statement impressed upon our minds. It is not the study of the peptonizing function alone which claims our attention, but it is the proper understanding of the entire work which is performed in this human laboratory, including a large part of the alimentary canal, and a thorough appreciation of the relations which each function bears to the others, that make a rational anatomical diagnosis and indications for treatment possible and in many cases positive."

When Kussmaul in 1869 first used the stomach-pump and tube in the treatment of disease, Liebermeister correctly prophesied that this maneuver would probably mark an epoch in gastric pathology and therapy. When Leube in 1871 first recommended the stomach-tube for purposes of diagnoses, he cleared the way for the ready diagnosis of stomach disease. Without the methods evolved from Leubeg's original innovation, gastric diagnosis would soon fall and the treatment of stomach disease would once more become as unscientific as of yore.

The diagnostic value of the absence or diminution of free HCl in the stomach secretion, associated more particularly with piloric cancer and ultimate dilatation, was first systematically investigated by R. von den Velden at Kussmaul's clinic in Strassburg. Golding Bird called attention to this fact in 1842 and it seems strange that this information was ignored by the profession for diagnostic purposes during so many years.

I found in my investigations of gastric cancer, reported in 1893, in one hundred and twenty tests, free HCl absent in 92.7 per cent. and present (as a rule feebly) in 7.3 per cent.; from a larger number of cases since studied, material change in these figures is not justified.

The diagnosis of cancer of the stomach from the absence or presence of free HCl *alone* ought never to be made, but, associated with other symptoms leaning toward malignancy, we may assume with considerable certainty that the demonstration of the presence of HCl argues against the existence of cancer. The cases, according to Ewald, "in which there is a positive reaction to the carefully-applied tests are so rare that they have very little bearing on the question." Since the introduction of these chemical tests for the recognition of diseases of the stomach, we have learned much which is of value relative to blood-changes in these and other diseases. Thus, in some cases of latent or progressive cancer of the stomach, atrophy of the gastric follicles and pernicious anemia or other diseases associated with cachexia, stomach symptoms, and blood-changes, the combined results of gastric tests with the blood-examinations, *repeatedly* made, give facts which we must possess to clear the horizon and justify positive diagnosis.

Henry's observation showing that the reduction of red blood-corpuscles in cancer of the stomach does not keep pace with the cachexia, while in pernicious anemia the cachexia does not keep pace with the reduction of red blood-corpuscles, has been corroborated many times and is of great diagnostic value.

For the surgeon the knowledge gained by our new methods in stomach disease is strongly confirmatory. With a growing experience we are justified in entertaining for the future a well-founded hope of recognizing malignant disease of the stomach early, when as the surgeon's helpmates we shall save or prolong many lives in comparative comfort. By these methods of diagnosis the dietetics and therapeutics of gastro-intestinal diseases have been placed upon a more solid and scientific basis. The satisfaction experienced by the physician in outlining a diet which he knows will positively find a suitable reception and ultimate assimilation must be sufficient recompense for the time occupied in studying the individual case.

Time will not permit the rehearsal of profitable experiences in this field. The recognition by our positive methods of qualitative and quantitative changes in the secretory function of the stomach has ended the suffering of many chronic invalids. The recognition of hyperacidity and hypersecretion has relieved many unfortunate sufferers from uncontrollable pain, waning strength and wasting muscle, with rebellious

stomach symptoms. Scientific diagnosis in these cases, followed by rational treatment, yields brilliant results. No physician can do justice to himself or to his charge who is unable, when the case demands it, to apply the simple methods which without great labor or loss of time make clear to him the working ability of the stomach in its secretory, motor and absorptive parts.

No one who has worked in the broad field of medicine, unless finally biased by narrow and special practice, contends that in all diseases of the stomach we need the test-meal and the knowledge gained by its chemical examination for the recognition of disease. We shall always meet a large number of cases, however, with uncertain symptoms, with strong indications of disturbed gastric function, cases with features of malignancy, though without positive physical signs; cases in which the question of the benign or the malignant nature of the underlying process needs prompt recognition, in which we shall be able to add a strong link by the correct interpretation of data gained by the methods founded upon our knowledge of physiological chemistry.

In this connection I must call your attention to the great value of inflation of the stomach with air or carbonic acid gas. In office practice we often gain knowledge of the relative size and position of the stomach; of its relation to the neighboring organs; of its walls, as well as the resistance of these, by the administration of a Seidlitz powder, each part separately, to allow the escape of gas in the stomach to distend it. More satisfactory, in cases in which this maneuver fails, is the inflation with air through the stomach-tube. The failure to inflate the stomach by these means, with associated symptoms of malignancy, and the absence of tumor and free HCl would lead to a suspicion of infiltrating disease of the stomach-wall. In some cases adhesions to the surrounding organs have thus been recognized, while in a case of ulcerating cancer it was found that the adherent transverse colon was readily distended with the tube in the stomach, because of communication which existed between these viscera as the result of ulcerative changes.

The distention of the large intestine with air is frequently of great value in the localization of abdominal diseases; particularly useful in the recognition of renal growths in which the distended gut is found anterior to the growth. These methods are too rarely used and will not be discarded when fairly tested. The precipitation by centrifugal force of cellular elements from the stomach-contents, with microscopic and bacteriologic examinations, will often prove of great therapeutic and diagnostic value.

In connection with the diagnosis of syphilitic diseases, a fact which has been too often overlooked and which is rarely mentioned is the tolerance for the iodides in specific cases of ulcer and gastritis and the ready relief experienced. Under ordinary circumstances the symptoms of these patients are almost immediately aggravated.

The application of centrifugal force to clinical medicine is of recent date. Steinbeck of Stockholm, a medical student, first described the use of the centrifuge for the precipitation of sediments from urine, sputum, and other pathological fluids. Litten at the Congress of Internal Medicine in 1891 made a strong argument in favor of its use; Von Jaksch described the positive advantage of the combination of the centrifuge and Biedert's method in cases in which he was unable to find bacilli after patient search. Freeborn of New York in 1891 demonstrated a home-made machine capable of nine hundred and fifty revolutions per minute. Gerster and Sondern followed with contributions on this subject and in 1894 Elsner and Hawley, after a considerable experience with the instrument, dilated on the clinical value of the centrifuge.

Experience with the centrifuge has proved it to be of inestimable value. It is one of the few aids to diagnosis which have been generally adopted and to-day there is practically no laboratory or hospital in which it is not found. The time gained by centrifugalizing urine is of great advantage, when an unaltered urine is desired (fermentation not having taken place); the early precipitate shows epithelial casts and other structures before changes in shape, size and contour occur, and these without bacterial contamination. By the use of the centrifuge, insoluble and suspended elements are precipitated.

Blood may be precipitated when present in such small proportion that no other method would show it. It is invaluable to the insurance examiner in aiding to discover the underlying condition in cases of so-called transitory cyclic or of puzzling permanent albuminuria. It is our most reliable aid in detecting early primary genito-urinary tuberculosis. It precipitates small quantities of albumin with picric acid and makes possible the immediate application of Esbach's test, thus saving twenty-four hours.

The bacteriological examination of serous exudates and other pathological fluids is expedited by its use, as is also the examination of sputum for tubercle bacilli when they are present in small numbers. The writer found that in twenty-one per cent. of urine analyses, the centrifuge yielded results which led to greater accuracy in diagnosis than could have been otherwise obtained.

In doubtful cases of renal calculosis, the methods of Kelly, including the distention of the kidney and its pelvis with water, after his improved maneuver, gives information which cannot be obtained without exploratory operation. The added evidence furnished by the X-ray examination and the skiagraph will often furnish proof which justifies accurate and scientific diagnoses, though the clinical history may be meager and unsatisfactory. These and similar methods, with painstaking bedside study, may arouse suspicions which must finally lead to positive conclusions.

The birth of a new science, hematology, founded upon accurately-interpreted data, has added great pleasure and material profit to the

study of many conditions, formerly puzzling in their differentiation and unsatisfactory in their treatment. No diagnostic methods in medicine give more conclusive evidence or offer more uncontrovertible pictures than are revealed by those which we to-day include in our examinations of the blood. When I hold that these methods have not only been profitable, but have given the diagnostician genuine pleasure, I speak without exaggeration.

It is not the object of the evenly-balanced physician to replace the knowledge gained at the bedside by laboratory findings, or to limit diagnosis by considering only facts made positive by microscopical examination and staining of the blood, but to *add* the exact knowledge which was unattainable before the advent of hematology. Let him who has never relied upon blood-examination for assistance in diagnosis work but a short time in this field, and he will unfold a chapter to which he will revert for information and upon which he will learn to place great reliance as he becomes more and more conversant and expert in technic. Blood-examination means much more than would appear on the surface to those who are unacquainted with hematological methods. From a narrow conception of the true significance of the anemias, we have broadened the field until we hold without fear of successful contradiction that the positive diagnosis of the simplest form cannot be made without the aid of data obtainable by blood-examination.

Clinically the picture of a grave anemia, nonmalignant, is often identical with that of pernicious anemia. Pernicious anemia may in some of its stages simulate exactly in subjective symptoms and in many of its objective features a true leucemia, while Hodgkin's disease may present symptoms not unlike malignant disease, lymphatic or mixed leucemia. The missing link in the differential diagnosis can be furnished only by laboratory examination of the blood.

Without the quantitative test for hemoglobin, we would often fail in our differentiation of the anemias, while our treatment would continue to be irrational.

Differential blood-counts and staining methods give data which justify the positive differentiation of the various forms of anemia known as leucemia. Thus, we have learned to recognize the pathognomonic lymphocyte of lymphatic leucemia and the myelocyte of the myelogenous or splenomyelogenous variety of the disease.

Who shall be able to compute for the profession the gain which has accrued from our ability to diagnose malaria from the presence in the blood of its protozoon? Our ready method of demonstrating the organism of malaria has made positive the nature of many most difficult and troublesome conditions. Add to this the readiness with which, after the method of Sittman, we recognize bacterial contamination of the blood and you have included methods by which medicine has become more exact and satisfactory. In many epidemics we meet continued fevers without characteristic symptoms of typhoid, which can be diagnosticated only by the systematic use of the Widal agglutination test. The percentage of failures is relatively small, while the positive information, so much needed in doubtful cases, is often, though not always, obtained. Absence of leucocytosis or a diminution below the normal of leucocytes with fever, with the absence of other objective features, has often justified the diagnosis of typhoid before a positive Widal test was obtainable. The presence of leucocytosis with chills and fever or with continued fever, with or without local symptoms, has often led to conclusions which have been life-saving in their effect. Sudden and persistent leucocytosis in typhoid fever and in other conditions not usually associated with polymorphonuclear leucocytic increase, points to complications the nature of which may be surmised with great certainty when the result of the blood-examination is considered with the associated subjective and objective symptoms.

The revelations of a leucocyte-count in a case recently seen in which irregular fever and chills followed dysentery, without more than a slight tenderness in the right hypochondrium with slightly-enlarged liver, furnished the information which made pus accumulation probable and justified exploration. An abscess of the liver was found.

Puzzling cases in which tuberculous diseases require differentiation are often cleared up by a count of leucocytes. This method of differentiation is one which we will often use and, unless we have mixed infection with tuberculosis, the absence of leucocytosis may be considered an important factor in diagnosis. Thus, in tuberculous peritonitis the leucocyte-count is not materially increased. Leucocytosis with brain symptoms argues in favor of meningitis, non-tuberculous.

Much has been written recently on the condition of the blood in surgical disease, particularly in appendicitis. In connection with this disease we must not fail to give an existing leucocytosis the prominence which it deserves. To depend upon the results of the blood-examination, without giving to other symptoms in a suspected case of appendicitis their proper import, would lead to unpardonable error.

The diagnosis of *trichina spiralis* may be and has been corroborated in doubtful cases by the presence of eosinophilia. Eosinophilic increase may become an aid in the recognition of scarlet fever when other data are wanting or meager.

The detection of indican with or without leucocytosis gives information of value in occasional doubtful intestinal and abdominal diseases.

It has been said that the time occupied in making blood-examinations is out of all proportion to the knowledge acquired—an unjust and untrue charge. To gain exact information is our aim at any expense of time, but fortunately a thorough blood-examination can be completed in less than one and one-half hours, while in the majority of cases, with our newer methods and better technic, one-half that time will suffice to give the informa-

tion needed. The successful and busy physician ought to be willing to relegate this work to those less occupied; he will always be able to find trained assistants to complete this work for him. The simple and rapid methods of staining malarial and other blood-films without fixation, after the method of Romanowsky, and with the Jenner panoptic stain, reduce materially the time necessary for gaining satisfactory results.

The bacteriological diagnosis of certain diseases has become a matter of routine with the scientific worker. To the bacteriologist we look for the solution of many important problems in the prevention and recognition of disease. The number of lives annually saved by the application of bacteriological methods to the diagnosis of disease cannot be estimated.

When we consider the advantage of the bacteriological examination of the blood, including culture experiments, we are led into a broad field in which the practising physician cannot do more than accept the knowledge gained from the well-equipped laboratory over which special workers must always preside.

We have not received the encouragement which we deserve from the State in our efforts to prevent and diagnose disease. The policy of the State in this direction has been niggardly and short-sighted. Every section of the State should have a well-equipped laboratory in which thorough bacteriological work may be done to give the aid to the profession which for public safety is often promptly needed, and by which many difficult questions can be definitely settled. Thus, I have found during the past year counties in which there were no facilities for making cultures in cases of diphtheria, or for the application of bacteriological methods to the recognition or treatment of disease. Such faulty policy can only end in disaster and useless sacrifice of precious lives. I fear that many in our profession, as well as our legislators, have failed to appreciate what a leading part microscopy and bacteriology play, for an improved diagnosis is but a small portion of the gain to be derived from a scientific study of the causes of disease. "A new direction has been given to treatment."

The enormous advantages of serum diagnosis were well illustrated during the Spanish war, when the fevers prevalent among the American soldiers in Cuba and Porto Rico were claiming so many victims, and the differential diagnosis of typhoid malaria and the dysenteries was of such transcendent importance. The blood of ninety-five per cent. of the typhoids showed a positive serum reaction, the malarias were easily recognized by the characteristic protozoa, while the dysenteries gave no positive blood-picture.

Cases of typhoid associated with jaundice are mentioned by Cabot in which the diagnosis of yellow fever was eliminated by the immediate typhoid serum reaction. Cabot says, and it is true of serum diagnosis, "The whole process can easily and safely be carried out by the physician in his office without any laboratory facilities and without half the skill or labor necessary to examine the urinary sediments."

Much has been written during the last few years on the advantage of lumbar puncture in doubtful cases of brain disease, particularly in tuberculous meningitis. Microscopical examination of the fluid has often been negative. Langer sought to aid diagnosis by incubating the fluid withdrawn, but the patients died, as a rule, before conclusions were reached.

For animal experimentation large quantities of fluid are required, even for intraperitoneal injection, and positive results are too long postponed: It is doubtful whether in case of failure to demonstrate microscopically the presence of tubercle bacilli in the fluid withdrawn, we shall succeed by experiment of any kind in establishing a diagnosis with sufficient rapidity to be of any value to the physician.

It has been found that sugar is usually present in the meningeal fluid in cases of brain tumor, while in tuberculous meningitis it is absent as a rule. It will be preferable to depend on the ophthalmoscope in these cases without the puncture. Lumbar puncture in the hands of the inexperienced or uncleanly is not without its dangers. It is not at all likely that it will ever be adopted by the general profession for diagnostic purposes; indeed, in the majority of cases we are not dependent upon the information which it has been supposed by some to convey.

In occasional cases the diagnosis of malignant disease may be strengthened by the examination of serous effusions and tissue removed after some one of the improved methods.

Cancer-cells are no longer considered characteristic. Dock has shown that similar cells are found in cancerous, tuberculous and other effusions. The presence of many cells in serous effusions showing mitosis, either typical or atypical in type, is strongly suggestive of malignant growth. Centrifugalized specimens may, however, be examined for evidences of mitosis with negative result. The specific gravity of cancerous effusion is low, that of tuberculous higher, varying between 1020 and 1028. The presence of a large amount of blood has in several cases of cancerous effusions raised the specific gravity to 1020 or even 1022.

Simon says, "Clinically, it is frequently difficult to distinguish between transudates and exudates, and large ovarian, pancreatic, and hydatid cysts, as well as cystic kidneys, may at times be mistaken for ascites. In such cases a careful chemical and microscopical examination of the fluid in question may be of decided value. Very frequently, moreover, it is possible only in this manner to determine the true nature of the disease, and the importance of freely using the trocar and the aspirating-needle in diagnosis cannot be too frequently advocated."

The use of the Roentgen rays in medicine seems almost uncanny. It is doubtful whether with our present technic we gain many pictures which justify positive conclusions in the study

of internal diseases. The greater reliance must still be placed on associated physical signs and subjective symptoms. Certain it is that a correct interpretation of the skiagraph requires great experience and the production of the shadow must always be relegated to those whose practices are limited and who have infinite time and patience to give to this work. I know of no field in which greater perseverance and attention to detail are needed.

We have received valuable aid from X-ray examinations in diseases of the lungs and heart, especially when an accurate knowledge as to the size and movement of those organs was needed. The diagnosis of intrathoracic growths and aneurisms has been strengthened by the fluoroscope and skiagraph, without ignoring associated clinical manifestations. This method of inspection has been of greater advantage to the surgeon than to the physician, but to deny its value in medicine would be absurd and unjust. Changes in the bone, about the joints, and gouty deposits have been satisfactorily demonstrated. Dense foreign bodies in internal organs, such as calculi, are very often demonstrated by the Roentgen rays. Porous calculi have escaped detection in several cases examined by this method. If the negative picture had been depended upon, one case recently seen, in which there were over 500 calculi in the gall-bladder, would have remained unoperated upon.

Skiagraphy may be said to be in its infancy, but we are encouraged by the labors of Williams, Leonard, Stubbert and others, to hope for great assistance in the future from the use of the Roentgen rays in medicine. The recent introduction of an apparatus for giving stereoscopic vision by the X-ray is believed by some to add materially to the practical value in medicine and surgery of this method of examination. The usual silhouette effect is replaced by a picture which stands out distinctly, showing the space relations of the object viewed.

We are not to be discouraged by the fact that radiographs which seem unsatisfactory to the majority of ordinary observers are readily interpreted by the expert, for, in cases in which we must place considerable dependence upon these pictures as giving evidence of pathological change, we shall give the opinion of the X-ray expert the importance which it deserves, remembering always that we have received but a link and to strengthen the chain requires the thorough application of other confirmatory methods.

The scientific diagnosis of many diseases of the nervous system has been materially aided by our knowledge of the electrical reactions of the different tissues in health and disease. To those only who have a thorough conception of the newer anatomy and pathology of the nervous system will electricity give any assistance in diagnosis. Here, as in the localization of central and peripheral nervous lesions, physiological knowledge remains the ground-work upon which diagnosis must be builded.

Bennett has, after patient clinical observation in this field of diagnosis, demonstrated the truth of the statement that "Like all of our methods of physical diagnosis, electricity must not be depended upon as the sole means by which we are to arrive at a just conclusion in investigating the nature of disease. It is only one of the aids we employ, but which in conjunction with other facts and observations is a most powerful auxiliary." There are a sufficient number of instances in which electricity offers data for diagnosis which cannot be obtained from any other source and for this reason the general practitioner, as well as the specialist, must acquaint himself with the method of its application and must possess the underlying knowledge which makes rational conclusion possible. Though electricity may not be absolutely necessary for the diagnosis of the various paralyses it remains the means of giving it "a facility and precision which has become indispensable to the neurologist." Electric reactions, associated with a thorough study of the deep and superficial reflexes, lead to the interpretation of phenomena upon which depend localization and diagnosis in many puzzling conditions.

An instrument of precision too little employed by the general practitioners is the ophthalmoscope, for the introduction of which the memory of Von Helmholz will always be revered. If the information obtained from its use were limited to the eye, we would not consider its value on this occasion; it gives information regarding the existence and nature of pathological conditions elsewhere than in the eye which is often obtainable in no other way.

Gowers, in his classic work on Medical Ophthalmoscopy, says, "This information depends upon the circumstances that we have under observation: (1) The termination of an artery and the commencement of a vein, with blood circulating in each; (2) the termination of a nerve, which, from its close proximity to the brain and from other circumstances, undergoes significant changes in various diseases of the brain and in affections of other parts of the nervous system; (3) a nervous structure, the retina, and a vascular structure, the choroid, which also suffer in a peculiar way in many general diseases."

We do not contend that the general practitioner must of necessity become an expert in the use of the ophthalmoscope, but we believe that he must depend upon its revelations, if he would early recognize certain diseases of the brain, arterial degeneration and renal complications. Time does not allow on this occasion of an extensive argument in favor of the more frequent use of the ophthalmoscope by the physician; many cases might be taken from the records of those who have learned to use this instrument in general medical practice, which justify the great satisfaction with which its use is continued. We have only to refer to the significance of optic neuritis with brain symptoms, however vague, the presence of choroidal tuberculosis in advance of other positive symptoms, the presence of albuminuric

retinitis in cases of non-albuminuric nephritis, and the presence of retinitis and changed vessels in comparatively young subjects with transitory albuminuria and tube-casts, to show the value of the ophthalmoscope to the every-day doctor.

Those who for any reason are unable to refer these cases to special workers in this field should educate themselves by post-graduate study in the use of the ophthalmoscope for the recognition of the grosser pathologic changes in the eye.

In the preparation of this address the fact is appreciated that reference has been made only to a few of the newer methods upon which the profession is to-day leaning as aids in diagnosis. Limited time does not permit the consideration of many of the methods which are of undoubted value as adjuvants in the recognition of disease. That which I wish to emphasize is the importance of working systematically and scientifically, however busy we may be in our practices.

It is no secret that the charge has been made that too many patients in this country are often ignorantly and incompetently treated, and our medical schools and system of medical education are held responsible for this state of affairs. We must admit that we too often fail to stimulate the "scientific sense"; men are not educated to work systematically. Raise as high as you can the requirements for admission into the profession, gain the best timber possible, which will always include a majority receptive and earnest, and these serious charges will be less frequently made. We shall never be able to impress all with the enormous responsibility under which many almost stagger in medicine.

Many agencies have influenced American medicine. Whether these originated from communion with Louis, Laennec, Trousseau or Charcot in France; whether they were led by the Berlin school, the immortal Schoenlein, Traube, or Virchow, and their followers; were founded upon the methods of the Vienna school from which radiated the benign influence of Bamberger, Duschek, Skoda and a score of others, or were the products of our own enlightened masters of medicine—and we have had many—each had a scientific fundament and each vied with the other in unearthing new truths to be applied to the recognition of disease and its treatment.

The clinical medicine of the past may with reason be compared with a rude and hardy plant, now grown in spite of neglect to a colossal tree with innumerable branches, richly laden with fruit, its roots reaching far into the fertile soil for nutriment. This soil must be nurtured and sustained, else the tree will fade and die. The new must become an integral part of our being; the new of to-day is often enriched by the new of yesterday. True it is that "stagnation is something more than death." The physician of to-day has countless advantages over his forebears; his training makes him more enlightened, he has been forced to equip himself for life's work. The advantages offered for the thorough and scientific study of disease were never before equaled in this or any other country.

A generous public, by the free giving of material aid, encourages the solution of scientific problems related to disease and its prevention by scientific methods. In return it has a right to demand the product of our best, our most conscientious efforts. Are we not also prompted by selfish motives to work scientifically? Our only safeguard against quackery is "continued recurrence to the scientific basis on which the practice of medicine rests." We must gain exact knowledge in order to derive satisfaction from our practice. Even with increasing knowledge the layman's demands may in many cases be far beyond our ability to supply.

We can ill afford to encourage iconoclasts in medicine. Fortunate for us that we have no Paracelsus—a badly-balanced genius—a dangerous revolutionist at work to reject all that has been taught because of a pronounced taste for a single science. There will always be extremists against whom the evenly-balanced must array themselves. The application of modern methods in the diagnosis of disease must always remain supplementary to bedside study, but no one who has taken advantage of laboratory methods will deny that by laboratory study much may be learned of the greatest scientific and practical importance without which we would be poor indeed. The practical diagnostician will not be narrowed by the association of laboratory methods with clinical data; he will not become theoretical, but more practical; he will become a more acute and cautious observer because of this training; he will "acquire knowledge at first hand" and make fewer hurried diagnoses; he will be prompted to do more original work.

There are those who, in spite of the fact that we are encouraged in all educational matters to develop the observant sense, continue to decry all laboratory and scientific methods. The scientist is charged with being a dreamer and impractical. "There are some, indeed, who would tell you that the scientific man is ill fated for anything but science; that he cannot be punctual, business-like, a plain speaker, pious, or I know not what else." . . . "It would be difficult to find greater nonsense in any of the books or journals on a modern bookstall." . . . "There is nothing that a man may not be at the same time that he is scientific." (Paget.)

Failures in practice are by no means limited to the scientific. This fact requires no extended argument. Did Schoenlin's practical work in Berlin suffer because of his scientific attainments or because he became the pioneer in Germany in the introduction of physiological methods, the microscope and chemical analysis, in the study of his clinical material?

Haller had made the attempt one hundred years before, but the scientific fundament supplied by pathological anatomy was wanting. Hippocrates

auscultated, and Anenbrugger one hundred years before Laennec attempted to introduce percussion as a diagnostic agent. These attempts bore no fruit; pathological anatomy was needed to make clear the meaning of physical signs. It is by no means to be considered an accident that, among the greatest advances in medicine made during the century just closed, both pathological anatomy and auscultation were introduced into the clinic by the same clear mind, Laennec. He is one of the greatest physicians in history. Allbutt has said, "He deserves to stand by the side of Hippocrates, Galen, Harvey and Suydenham. His work was a revelation of the morbid anatomy of the internal organs during the life of the patient."

The physician who is truly successful in practice must depend in a great degree upon the good opinion of his fellow-practitioners. Laymen have not the positive means of gauging our ability which those possess who are fitted to judge.

Nothing commends itself to the professional mind as does the thorough scientific investigation of individual cases. Certainly there are among those who have no medical education some who judge reasonably of the physician's worth; but the number of these is few. Of the majority we may say they are the most ignorant who are most positive and loudest in their praise or denunciation, and these are often the most influential.

Herbert Spencer has well said, "Had we time to master all subjects, we need not be particular."

"Could a man be secure
That his days would endure
As of old, for a thousand long years,
What things might he know!
What deeds might he do!
And all without hurry or care."

Bearing in mind our limited time for acquisition and action, the question which is of such transcendent moment is whether the methods recently introduced are of sufficient benefit in the study of disease to claim our attention and time. We must determine, in other words, "the relative values of knowledge." If we consider the relative worth of these methods to the clinician from an unbiased standpoint, we must conclude in favor of the adequateness of the advantages. There is certainly a proportion between the required labor and the probable benefit. The young man needs the knowledge and training which the thorough study of disease develops, while those who have grown old in the treadmill must take advantage of modern methods and ideas to retain their standing in the profession.

Sir James Paget, in his Memoirs recently published, writing on the "Ways into Practice" and the "Various Ways out of Practice," speaks candidly of the conditions which affect success and invite retrogression. Between the lines one can read the thoughts of this clear-minded gentleman-physician and the appreciation by him of the importance to the honest worker of receiving, after a sufficient period of probation, the methods which were included in the armamentarium of his juniors and pupils.

To those who are practising at a distance from centers where men are devoting themselves to the accurate methods in medicine, a word of warning may not be misplaced at this time. Your influence will not endure if you persist in ignoring methods which have been tried and found useful. You will finally hold only a remnant of your present clientèle. In spite of the fact that the public has never been more credulous or more ready to encourage quackery, the services demanded from the physician were never before expected to be of so high an order. His search must always be after the ends of science. "The real and legitimate goal of all sciences is the endowment of human life with new inventions and riches." The individual has a right to demand of his physician accurate recording of all facts relating to his condition with a painstaking investigation of every detail which the case offers, by *every method needed for accurate observation and ultimate diagnosis.* Believing that modern methods of diagnosis lead to the trustworthy interpretation of symptoms, with a firm belief in the superior ability of those who have adopted these methods, the lay world is fast removing its former prejudices aganst hospitals in which medicine and surgery are practised rationally. The consulting-rooms of those who are known to employ most thorough methods are filled with all classes of clients. There is a feeling abroad which calls for thoroughness from those charged with the recognition and treatment of disease.

The period has not yet been reached when we can truthfully deny that our art is in advance of scientific direction and explanation. Now as always we need common sense, as well as knowledge, with ready decision and resourcefulness. These no college or teacher can supply. We must never allow our critical faculties to exceed the practical. It has been truly said that "practice without scientific reëdification soon degenerates into stereotyped and sterile routine." No amount of extra labor bestowed on the study of disease will prove irksome to him who possesses the true scientific spirit; on the other hand, the consciousness of a duty thoroughly and consistently performed will prove an ample reward.

Out of the clinical laboratory "the new medicine is to come—the medicine which, penetrating into the intimate processes of Nature, learns to turn Nature to her own correction—the clinical laboratory is to be the scene of the study of the origins of disease."

"A life full of work and labor is no burden, but a boon, an enjoyment." This served as the text of Virchow's original thesis. His life has been sweetened by the conscientious and scientific application of his great powers, and it is this spirit which will continue to inspire the physician.

The moral force of scientific methods in medicine is the greatest factor in modern medical practice.

NOTE ON THE GLYCOSURIA FOLLOWING EXPERIMENTAL INJECTIONS OF ADRENALIN.*

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IT is the object of this communication to call attention to the fact that when a considerable quantity of adrenalin (Takamine) is injected into the peritoneal cavity of a normal dog there follows a rapid and usually considerable excretion of dextrose with the urine. This fact was noted in the course of a research upon the functions of the pancreas, which is being carried on by the writers under the auspices of the Rockefeller Institute for Medical Research.

Apparently the first observations on the influence of the suprarenal gland upon carbohydrate metabolism were those of Blum[1] who found that the urine of animals subcutaneously injected with considerable quantities of an extract of fresh suprarenal gland regularly contained sugar, even when the diet of the animals (chiefly dogs) had been free from carbohydrates. The highest percentage of dextrose observed was 3.8 per cent.; usually the concentration of sugar in the urine was much lower.

The discovery of Blum has recently been confirmed by G. Luelzer[2] and, in this country, by Croftan.[3] The latter writer reaches the conclusion that the glycosuria observed by him in rabbits and dogs depends on the action of a diastatic ferment in the suprarenal gland which converts the glycogen of the liver into sugar.

The observations made by us on the action of adrenalin in producing glycosuria are strongly opposed to the idea that the suprarenal glycosuria is connected with a diastatic ferment contained in this organ. Further reference will be made to this point.

Two very recent publications[4] relating to the chemistry and pharmacology of adrenalin fail to make any reference to the ability of this preparation to induce glycosuria and it seems fair to infer that this action of adrenalin has not heretofore been noted. The omission is the more noticeable as one of these papers is by Takamine (to whose ingenuity we owe adrenalin) whom one may presume to be fully familiar with the investigations that have been made on the properties of the extract.

The following are brief extracts from the protocols of our experiments:

Experiment I.—A small terrier (about 16 lbs.) received 6 c.c. of a 1-1,000 adrenalin solution (Takamine) in the peritoneal cavity. During the following two hours there were repeated vomiting and great excitement which gave way to prostration and unsteady gait. Urine previous to injection contained no reducing substance. Urine passed six hours after injection contained 6 per cent. of sugar by fermentation (6.11 per cent. by Fehling) and yielded a typical glucozazone. No more urine was secreted. The animal died about twelve hours after the injection, after having had bloody diarrhea.

Autopsy.—Peritoneal cavity contained about 30 c.c. of bloody fluid. Entire gastro-enteric tract, from lower end of esophagus to anus, intensely congested. Mucosa deep purple color, surface denuded of epithelium. Congestion most intense in descending colon and rectum. Pancreas unevenly hemorrhagic and congested throughout. Liver and spleen normal. Kidneys slightly congested. Suprarenals appear slightly congested at junction of cortex and medulla. Tissues preserved in Ohlmacher's fluid. Sections through descending colon show mucosa to be entirely denuded of epithelium in places. Submucosa is seat of numerous and extensive hemorrhages. Pancreas shows considerable congestion, most noticeable in the capillaries close to the islands of Langerhans. Many lobules are the seat of hemorrhage and near such hemorrhages the secreting cells are in all stages of disintegration. Numerous focal necroses involving nearly entire lobules. In some parts the acini are well preserved. Between the necrotic areas and the well preserved acini are zones of acini showing various grades of cell degeneration. In places the cells composing the islands of Langerhans show only slight degenerative alterations of the cell-bodies, the nuclei retaining their normal structure and staining properties. In very many places these cells are markedly altered, the protoplasm of the cell-bodies showing a high degree of granular degenerative change. The cell nuclei have in many instances lost their chromatin, and are barely distinguishable. Many of these nuclei are very pale and some show no coloration by hematoxylin. It is noticeable that in many places the acini about these much damaged cells are comparatively well preserved. The acini that are not necrotic are widely separated and the connective tissue is looser than normal, suggesting the presence of edema. The kidney shows only the signs of acute congestion. The suprarenal structures are unaltered.

Experiment II.—Small dog (about 20 lbs.). Animal bled; 30 c.c. for sugar determination. Urine collected at this time reduces Fehling's very slightly. Soon after bleeding received 6 c.c. adrenalin in peritoneal cavity (1-1,000 solution). Urine passed forty-five minutes later contained an abundance of reducing substance (Fehling's); by fermentation 4.20 per cent. glucose. Vomited several times within a few hours of injection; later had bloody diarrhea. Urine passed during

*The observations referred to in this paper were made partly in the laboratory of Dr. Herter, partly in the Laboratory of Physiological Chemistry, College of Physicians and Surgeons, Columbia University.

[1] Ueber Nebennierendiabetes, Deutsches Archiv für klinische Medicin, Bd. 71, Heft. 2 and 3, p. 146, 1901.
[2] Zur Frage des Nebennierendiabetes, Berliner klinische Wochenschrift, No. 48, s. 1209, 1901.
[3] Concerning Sugar Forming Ferment in Suprarenal Extract. A Preliminary Report on Suprarenal Glycosuria, American Medicine, Jan. 18, 1902.
[4] E. M. Houghton, The Pharmacology of the Suprarenal Gland and a Method of Assaying Its Products, Jour. Amer. Med. Assoc., Jan. 18, 1902, and J. Takamine, The Blood-Pressure Raising Principle of the Suprarenal Gland, Jour. Amer. Med. Assoc., Jan. 18, 1902.

night after injection reduced Fehling's strongly. Urine in bladder twenty-four hours after injection contained 0.4 per cent. glucose. Animal bled for sugar determination, then bled to death.

Autopsy.—Congestion of mucous membrane of stomach, lower jejunum and ileum in patches, intense congestion of greater part of rectum, irregular congestion of colon. Pancreas irregular and finely mottled with pink. Appears normal on section. Kidneys and spleen look normal. Suprarenals look congested in cortex. Blood drawn before injection contained 0.163 per cent. sugar. Blood drawn after injection (when urine contained 0.4 per cent.) contained 0.174 per cent. glucose.

Experiment III.—Large mongrel terrier (about 40 lbs.) received 10 c.c. adrenalin solution (1-1,000) intraperitoneally. Urine drawn within five minutes after injection contained 0.25 per cent. glucose. Urine collected next day did not reduce Fehling's. Animal vomited after injection, but showed no prostration and had no diarrhea. Recovered.

Experiment IV.—Large dog (about 30 lbs.), bled for sugar determination. Urine collected after bleeding free from sugar. Injected intraperitoneally 18 c.c. adrenalin solution (1-1,000) which had been boiled for five minutes. In half an hour animal became violently excited and remained so for more than one hour, howling continually. Vomited several times. Refused food six hours after injection, but drank water. Urine collected four hours after injection contained 3 per cent. sugar by fermentation and reduced Fehling's strongly. Recovered.

Experiment V.—Large dog (about 50 lbs.); urine free from sugar. Received 8 c.c. adrenalin solution (1-1,000) in peritoneum. After remaining quiet about half an hour after injection, vomited and became violently excited for more than one hour. Excitement then gradually wore away. Urine collected four hours after injection contained 9.17 per cent. of glucose and 1.84 per cent. nitrogen. The ratio of nitrogen to dextrose was thus 4.98. Six hours after injection, animal refused meat, but drank water. Day following injection animal appeared in good condition and urine was free from glucose. Recovered.

Experiment VI.—Small dog (about 18 lbs.); urine free from sugar. Received 8 c.c. adrenalin solution (1-1,000) in peritoneal cavity. One hour later urine contained 6.9 per cent. glucose. Eighteen hours after injection urine contained 2.0 per cent. glucose. Forty hours after injection no reducing substance was present in the urine passed at this time. Recovery.

Experiment VII.—Small dog (14 lbs.) received 5 c.c. adrenalin solution (1-1,000) intraperitoneally. Soon vomited. No excitement but some prostration and drowsiness. Urine before injection 0.46 per cent. glucose (Pavy's method); after injection (twenty-one hours later) urine contained 5.26 per cent. glucose.

Experiment VIII.—Large dog (about 40 lbs.). On January 14th given 1 gm. phloridzin under skin. Next day urine, previously free from sugar, contained large quantity of glucose. January 15th received 1 gm. phloridzin under skin. January 16th urine continued to show large quantity of glucose. January 18th urine contained about 1 per cent. glucose. Animal fasted from January 14th to 18th. On evening of January 18th received a moderate allowance of lean meat. Animal then fasted until evening of January 23d. On January 22d, urine being entirely free from reducing substance, the dog was given 10 c.c. adrenalin solution (1-1,000) intraperitoneally. Urine collected four hours after injection failed to reduce Fehling's solution in the slightest degree. Urine passed about twenty hours later reduced Fehling's solution slightly (0.1 per cent. glucose). Soon after last collection animal received 1 gm. phloridzin. Next urine passed contained an abundance of glucose (1.28 per cent. glucose).

Experiment IX.—Dog (24 lbs.) received 7.5 c.c. adrenalin solution (1-1,000) under skin. Urine before injection 0.31 per cent. reducing substance (Pavy); twelve hours after injection 0.47 per cent. reducing substance. After this collection animal received good meal. Eight hours later 10 c.c. adrenalin (1-1,000) in peritoneal cavity. Four hours later urine contained 5 per cent. glucose.

Experiment X.—Dog (30 lbs.) received 10 c.c. adrenalin solution (1-1,000) under skin. Urine before injection 0.48 p er cent. reducing substance (Pavy). First collection after injection 0.66 per cent., second collection 0.52 per cent. reducing substance.

Experiment XI.—Dog (50 lbs.) received 15 c.c. adrenalin solution (1-1,000). Urine before injection contained 0.33 per cent. reducing substance (Pavy); second collection, 0.57 per cent.; third collection, 0.42 per cent.; fourth collection, 0.46 per cent.; fifth collection, 0.44 per cent. reducing substance. Second, third, fourth and fifth collections were made *after* injection.

The observations here recorded show that the intraperitoneal injection of adrenalin solution (1-1,000) in doses varying from 6 to 10 c.c. was in each instance followed by the appearance of glucose in the urine.[5] In one instance the percentage reached 9.17 per cent.; in another it was as low as 0.25 per cent. In one instance the sugar appeared in the urine in less than five minutes. Two of the dogs died. All vomited and showed more or less violent excitement after the injection. Those which recovered showed some degree of prostration twenty-four hours after the injection. With two exceptions the dogs used had been on a diet of lean meat previous to the injections.

Experiment VIII. appears of special interest, because an effort was made greatly to reduce the store of carbohydrate material by means of injections of phloridzin together with deprivation

[5] Since the foregoing was written an observation has been made regarding the local application of adrenalin solution to the pancreas. Dog, previously used in Experiment V., after his recovery and the disappearance of glucose from the urine, was etherized and the abdominal cavity opened. Pancreas exposed and 1 c.c. of adrenalin solution (1-1000) plus 1 c.c. of water applied to its surface by means of a soft brush. After a slight immediate blanching of the gland, congestion followed simultaneously with the appearance of glucose in the urine, ten minutes after application of the adrenalin solution.

of food. It is noticeable that urine collected four hours after the injection did not contain any sugar, although glucose subsequently appeared in very small amount.

Another feature of interest is the fact that an abundant excretion of glucose followed the injection of an adrenalin solution which had been boiled for five minutes. We should expect any diastatic ferment contained in the extract to be destroyed by this treatment. Indeed the method described by Takamine[6] for the preparation of adrenalin renders it most unlikely that any diastatic ferment would resist the injurious action of the heat employed in the course of the process for the purpose of getting rid of albuminoid substances. To accomplish this involves an exposure to 90° to 95° C. for a period of one hour.

It may also be pointed out that adrenalin can be added to a solution of glycogen and kept in the incubator for twenty-four hours without any conversion of glycogen into sugar. These different considerations show that there is no reason for attributing the glycosuria from adrenalin to the presence of a diastatic ferment. There is also no satisfactory ground for referring to a diastatic ferment in the suprarenal body the glycosuria caused by any extract of this gland.

Attention is directed to the observation that the dogs which received adrenalin subcutaneously showed only a slight increase in the reducing substance of the urine. With doses of equal size these results contrast sharply with the glycosuria following intraperitoneal injections.

The alterations noted in the intestine and pancreas in Experiment I. are remarkable. They indicate that the suprarenal extract is capable of inducing changes of a highly destructive character in these parts. How these alterations are brought about we shall not undertake to discuss here, as it is our intention to speak of these lesions more fully in another connection.

While we do not at present care to express an opinion as to the relations between the glycosuria caused by adrenalin and the lesions observed in the pancreas, it may be stated that we have already made observations which suggest that this glycosuria is in reality of pancreatic origin. It is not, however, maintained that advanced pancreatic lesions like those to which we have referred are essential to the glycosuria in question.

Among the topics which we reserve for future discussion in connection with adrenalin glycosuria or diabetes are the glycogen content of the liver and muscles and the sugar content of the blood.

We feel justified in emphasizing the following facts:

1. Adrenalin given intraperitoneally is capable of inducing a marked glycosuria, in which the percentage of sugar may reach 9.17 per cent., and the ratio of nitrogen and dextrose 4.98.

2. Adrenalin glycosuria is not dependent on the presence of a diastatic ferment stored or formed by the suprarenal gland.

3. Adrenalin injections are sometimes followed by destructive lesions of the gastro-enteric tract and pancreas.

4. After a fatal dose of adrenalin the cells composing the islands of Langerhans were found to be the seat of granular degeneration, very pronounced in some places. The nuclei of many of these cells showed extensive loss of chromatin substance. In some parts of the pancreas the cells of the islands of Langerhans were much more injured than the surrounding cells of the secreting acini.

6. With equal doses of adrenalin the intraperitoneal injections proved much more efficient in the production of glycosuria than injections under the skin.

[6] Loc. cit.

SANITARY ASPECTS OF NICARAGUA VS. THOSE OF PANAMA.

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IN the MEDICAL NEWS of January 4th appeared an article entitled "Sanitary Aspects of the Panama and Nicaragua Canals," written by Mr. Soper, of New York, Sanitary Engineer, in the opening paragraph the article is referred to as being a disinterested one. To those familiar with the physical and climatic conditions of the two routes, as well as with their medical history, two facts are to me very patent, viz., either the article referred to is not a disinterested one, or the writer is from my point of view misinformed concerning his subject.

He states the truth when he says, "Not only is the question of health a factor to be considered in the construction of the canal, but when the canal is completed the rôle of this great waterway, in promoting or endangering public health, will be a subject of immense commercial importance;" but it is astonishing for him to say, "Since the period of the Spanish conquest, many attempts have been made to colonize Central America, but the foreigners of Spanish extraction are the only ones who have been able to withstand the climate with even a tolerable degree of success." The truth is that Central America possesses many beautiful spots of great healthfulness and large foreign colonies have lived successfully there for years; and, if the same common sense is observed in selecting sites for residences as is observed in the United States and European countries, the Anglo-Saxon can live at least as many years and with as perfect health in Central America as elsewhere. The description of the physical condition of the natives can be applied justly only to a few of the Peon class, who are located along some of the low, malarial districts. The writer of the article referred to also shows a lack of precise knowledge of geographical as well as political lines by confounding Central America with the Isthmus. Those acquainted with these countries are well aware of the fact that the Isthmus is not within the bounds of Central America, the five republics of which district are all situated north of the Isth-

mus of Panama, which lies within the limits of South America. This misconception of the subject is perhaps not to be wondered at, when many intelligent people in the United States think that Nicaragua is situated south of the Isthmus of Panama. The fact is that between Nicaragua and the Isthmus proper is situated the high and mountainous republic of Costa Rica.

Now, as to the comparative healthfulness of the two districts, in referring to Panama, this writer says, "According to Wallis, 'smallpox, yellow fever and paludal fevers in their infinite varieties and forms are never absent from these intertropical regions where they are truly endemic.' Nelson, after an experience of five years at Panama, gives his approval of the statement long made with reference to the Isthmus, that it is the 'Grave of the European.' It has also been called the 'Pest House of the Tropics,' and Bigelow says that here truly 'Life dies and death lives.'

"In the contracts let by the old Panama Canal Company, the latter was compelled to supply the labor. The total population of Panama was estimated at not above 150,000, and, as many thousand workmen were required for the work upon the canal, it was necessary to import labor from abroad. In the effort to supply the demand, many laborers were brought from the Island of Jamaica, but of these many soon fell sick and died, and a large number of the remainder left the work to escape a similar fate. Other workmen came from Carthagena, the British Antilles and the lower Mississippi Valley. Of all the labor employed, the most hardy workers, as regards ability to endure hardship and resist disease, were a tribe of Indians from the Magdalena River.

"The sickness and loss of life among the men engaged at work upon the canal have been variously stated. Davidson declares that of a force of 7,000 men, the company reckoned that about 1,000 men were always in hospital. From other sources we learn that the sickness and death-rate among the laborers were very high. In Panama and its vicinity 37 engineers out of less than 100 are said to have died during the months of March and April, 1882. An observer declares, 'There was a single French engineer who had been able to attend to the work beyond one year and a half, although the contract called for two.' In September, 1884, it is said the Canal Company buried 654 officers and men. There were many sanitary abuses when the canal work was first begun, and the method of charging the contractors for the care of the men in hospital no doubt caused the laborers to be kept at work when they should have been under medical care.

"The health conditions as officially reported by French authorities, do not show the high mortalities from diseases incident to the climate which have been indicated by travelers and other independent observers. But Heffenger declares that it was impossible for him to gain access to the health records of the Panama Canal Company and that the impression gained by him after investigating the matter privately was, that the public reports were garbled and incorrect. Dr. Heffenger states that he was informed by a leading physician of Panama that in the first eleven months, during which preliminary work in the canal was under way, 65 officers and 800 men died of disease.

"It is recorded by Liddell that 382 patients treated by him between the middle of June and the succeeding May, 250, or more than two-thirds, were suffering from remittent fever with bilious, gastric or enteric complications. Refering to the importation of labor for the Panama Railroad, Liddell says that the services of laboring men from the United States could not be counted on for three successive months. Before the end of the second month one-half of the force was on the sick list or enfeebled by sickness already sustained."

The foregoing statements as to the fatality of the climate along the Panama route, or what is truly the Isthmus, are not at all exaggerated. It has been roughly estimated that, in the construction of the Panama railway, every cross-tie represents a human life. Let us look at the other side of the picture, namely that of the health records of Nicaragua. Carefully kept medical statistics show that *the death-rate among the employees at work along the route was seven-tenths of one per cent.* The greatest amount of sickness was encountered in building a railway through a swamp, eight miles from the coast to the foothills. In constructing this route, laborers were obliged to work all day long in swampy water varying from three to five feet in depth. The laborers were drawn, as in the Panama enterprise, from Jamaica and other West Indian islands, with a small percentage of Anglo-Saxons from other countries. In no instance, as far as my memory goes, did an Anglo-Saxon employee of the Canal Company who was engaged in work along the line die from any climatic disease when the proper rules of living were observed. Nearly every employee, along the Nicaragua route had an attack of malarial fever within a short time after landing, but the hospital record shows that the average length of time that such an attack incapacitated a man for work was five and one-half days, thus proving that this same form of remittent fever is less severe and of shorter duration in Nicaragua than in our own Southern States.

Contrary to the statement of the writer of the article referred to, I wish to say emphatically that cases of pernicious fever were not numerous along the Canal route. Epidemics of pernicious malarial fever do occur in the cities of the interior of Nicaragua in the fall months, but, comparatively speaking, their number is small. During a time when towing steamers were busy between Colon on the Isthmus of Panama and Greytown in Nicaragua, it is a notable fact that some of the crews engaged in this work developed Chagres fever, and *it is remarkably significant that every patient with this disease who*

was landed at the Nicaragua port recovered, while a large percentage of those landed at the Panama port died.

Yellow fever is always present, more or less, on the Isthmus of Panama; never, to my knowledge, has a single case been seen along the line of the proposed Nicaragua Canal. Isolated suspected cases have been met with well to the west of the route, between Managua and Corinto. I have seen many of these cases personally and have always been of the opinion that they were nothing, more or less, but exaggerated cases of pernicious fever of the icteric variety. One important factor would seem to settle this in the minds of disinterested observers, namely, that the victims of this fever had recurring attacks, from fourteen days to a number of months apart, and but very few of them died in the first one. Moreover, the paroxysms were generally absolutely controlled by the hypodermic administration of quinine.

The men engaged in work along the Nicaragua Canal in the jungle or forest, after reaching the foot-hills, showed a very small percentage of illness and no fatality. The lake region in Nicaragua is notoriously healthy, while along the western division, between the lake and Brito, we find a region healthful in every respect for foreign residents.

Greytown, at the eastern terminus of the Nicaragua route, also possesses among its permanent residents, as compared to Colon and Panama, a remarkably good health record. The physical conditions of the two countries make very plain why Nicaragua is more healthful than Panama. One can satisfy one's self on this point by studying the papier-mâché models of the two routes. On the Nicaragua route, at the east end, there is a short distance of five or six miles through swamp land with a sandy bottom, or, in other words, mostly made land from the ocean; from this point, the hills rise with such abruptness as to make rapid currents in the numerous small rivers flowing from them. The broad San Juan River itself is a mighty stream, flowing with great velocity from Lake Nicaragua to the Atlantic seaboard. When we reach the lake, there is an immense body of water across which are blowing, twenty-eight days out of every thirty, the strong northeast trade winds which have come across the Caribbean Sea. These same winds are probably greatly responsible for the healthfulness of Greytown, or the eastern terminus of the Canal.

The writer of the article referred to placed considerable stress upon the excess of rainfall at the eastern terminus of the Nicaragua Canal. I simply have to reply that it is an open question in the minds of observers of experience whether or not excessive rainfall necessarily means greater unhealthfulness. I am inclined to believe the contrary. Even allowing—which is a fair deduction—that during the work of more active construction the mortality along the Nicaragua route would be greater than during the so-called preliminary work, all well-authenticated statistics, derived from actual experience rather than from antiquated records of individuals, should lead us to believe that the death-rate along the Nicaragua Canal can never even approximate that experienced on the Panama route, and that, after the Canal is once built, the country should resume its present healthy conditions and be a safe place for tourists and pleasure-seekers. In fact, there is reason to believe that on the island of Lake Nicaragua there could and would be established a favorite winter resort, fully as attractive and healthy as some of our noted West Indian Meccas for pleasure-seekers. The mountainous regions that surround Lake Nicaragua abound in beautiful and healthy locations among the coffee fincas. No sane man would ever do more than travel over the Panama route as rapidly as possible.

The conclusions which I believe may be drawn from reliable statistics are as follows: (1) The natural conditions of the Central American or Nicaragua route are far more conducive to health than those along the Isthmus of Panama route. (2) The endemic diseases of the Panama route are far more fatal than those along the Nicaragua route. (3) During the time of actual construction, while there would necessarily be an increase of sickness, the mortality would be remarkably below that on the Panama route. (4) After the completion of the Canal, the regions bounding the Nicaragua route would be capable of development by the Anglo-Saxon, while he could not safely live along the Panama line.

Finally, let me draw attention to the fact that much more money was spent *per capita* by the medical department of the Panama Company than by the Nicaragua Company, and yet the results are in favor of the latter Company; and perhaps the most significant of all as weakening the argument of the article referred to, is the fact that the writer acknowledges that he had been unable to obtain authenticated statistics of the French Company, while those of the American or Nicaragua Company have always been open to those who cared to read them. It is a well-founded belief of many students in this country that there is a very patent reason for the withholding of the statistics of the Panama route.

Although the Canal Company has sent in a supplementary report to the Construction Committee in favor of the Panama rather than the Nicaragua route, they have done so on engineering and financial grounds, stating that they still adhere to the opinion that the hygienic conditions are entirely in favor of the Nicaragua route. This opinion has been expressed by men who have personally investigated the matter.

25 East Forty-fifth Street.

German Medical Society.—At the next regular meeting of the German Medical Society, to be held Monday, February 3d, Dr. F. Maass will read a paper on "Operations for Tumors of the Nasal Passages" and Dr. M. Einhorn wil report a case of "Hodgkin's Disease and Lymphatic Leucemia."

A WORD ON SPECIALIZATION IN MEDICINE AND SURGERY.[1]

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IN looking for a subject for this occasion, I selected one which touched the principle upon which your institution was founded and upon which it has rested ever since, viz., the specialization of surgical work.

As the area of surgery broadened and deepended, there were some who felt, as in other fields of human endeavor, that better results could be obtained in this were individuals or groups of individuals to concentrate study upon certain regions of the body, thus attaining better understanding of the causes and behavior of the disorders occurring therein and becoming more skilful in dealing with them. The same question, however, arose that had always met specialization, no matter where applied, namely, Where shall the lines of demarcation be fixed? A student of your history learns that in the contention upon this point you came near defeat, but truth is mighty and will prevail, so you scored victory. The general surgeon, as he is called, was your foe and a strong one as well. Holding the conviction that there was no good surgeon but the one who was equally at home in all parts of the body, he presented precedent and invoked practice to sustain his position; in all of which he was within his rights as then recognized, for his education was, of course, planned to cover the entire body, and it is hardly too much to say that he was generally regarded quite as competent to extract a cataract from the eye as to cut off a leg. But his eye was opened to the advantages of some specialization by what he saw was happening with eyes he left to those of his guild who were giving special attention to their ailments. This in reality established a precedent for further contention for special privileges. To be gained, however, as was but right, the necessity must be proven, then insisted upon, and continuously striven for. From such an effort grew this institution, the first, I believe, in the world, and a striking triumph of the doctrine of woman's rights. I have already cited the familiar adage, "Truth is mighty and will prevail," as the basis of your victory over the forces contending against your recognition. But I really think the woman in the case did more to turn the scales of victory your way than did mere abstract truth. I fear the venture would have long sat outside the gate had not her potent fingers touched springs and unloosed fastenings, leaving but dead weight to those whom Nature has always placed at her disposal.

Since I have said so much, perhaps, in view of the more or less professional character of this audience, it would be better to digress a little and say a word upon the general subject of specialization in our profession, medical as well as surgical, that which touches the general physician as well as that which involves the general surgeon. The problems presented to the physician are of such a nature that a broad view of the subject compels the conclusion that his work can be specialized to but a limited degree, if the interests of the patient are to be subserved. The large majority of conditions he treats are general rather than local, and, of those which are local, most pass of necessity into the hands of the surgeon, and, if not, are apt to form distant connections necessitating radical changes or substitutions of management, such as would carry him far from the initial position, in fact, might and often do carry him all over the field. I venture to say that most, if not all, of you have had experience verifying this statement. It is not sufficient answer to reply that, the function of the specialist being concentration of study upon one or a set of ailments or organs, he therefore is in the best position for early detection of divergences and for speedy application of remedy, because, so complex is the interrelation of organs which can be selected for specialization in medicine, a disease in one may have its first open manifestation in the derangement of another; hence, even should one begin as a specialist, he would be quickly driven to cover the whole field. With perhaps the exception of the specialty of nervous ailments, those which obtain in medicine are really based as much upon the physical and mechanical as upon the mental limitations or requirements of the situation. He who deals with sound and its variations, as with heart and lung ailments, must be clever with his ear, and he who looks after the children must be at all times a general practitioner and yet possess the time and patience to meet all sorts of irregular calls from beings who can tell him little at first hand, except through involuntary and unconscious expressions and attitudes, needing some special adaptation or training on his part properly to interpret. The only real specialty in medicine is neurology, rendered so by the dominant and decisive influence of the nervous system, and the need on the part of the practitioner for great elaboration of method in exploring a case and extraordinary patience and self-control in the management of people in whom will power is often wanting as an aid in cure.

The essence of surgery is a knowledge of topography of the function of the organs and a familiarity with the processes of inflammation and repair. A surgeon must be an anatomist, a pathologist, and a physiologist. He must have profound knowledge of all conditions of the system which influence its reparative work and must know how to differentiate conditions requiring his aid from those which the patient can master without it. But, after all this is acquired, that man is the best surgeon who has at his ready command the most complete acquaintance with the region in which he operates, not only as it is normally, but as it may be altered by disease, so that, entering it, he may never be at a loss how to

[1] Anniversary Discourse, Woman's Hospital, Nov. 21, 1901.

proceed in order to get the best result with the least damage to the structure or organ involved and those adjacent thereto. It is evident, therefore, that the man does best who, having a good education in the principles of surgery and some experience in their general application, brings to his aid the widest experience in the section he is called upon to enter. When we realize how region after region of the body has been brought within the domain of surgery, how, where but yesterday medicine reigned supreme, to-day surgery prevails, insuring cures and saving lives which were abandoned, we see the enormity of the task put upon any one who attempts to cover the entire field. In the interest of surgery, then, some division of the field is wiser, in fact, more essential, than in medicine. It would make my remarks to technical, perhaps pedagogic, were I to attempt demarcation before such an audience, but it is not necessary; it is requisite only to make a general statement of the reason for the principle for which you stand. I must also say that here, as in no other department of human work, care must be taken to avoid extending too far the application of the principle. Its limitations will be fixed by results, for in the long run that specialty will survive and flourish which can show a better all-round result for the patient than can be had in the general field. The interest which all this possesses for you lies, first, in the pregnant fact that this Hospital represents the earliest organized and successful effort to erect gynecology into a distinct surgical specialty, and, second, in the question, How far have results justified your creation and continuance? It is scarcely fair to make you answerable for all the good or evil which has followed your initiation, but your influence has always been so powerful that any question touching gynecology must come home to you, for you have been its chief exponent.

For thirty years your position was all the most sanguine advocate could desire. Your influence was enormous, not only here, but throughout the world; the good you did is incalculable. Manual dexterity by workers who gave themselves to a thorough mastery of all details that pertained to the problems involved was the basis of your success. But there came a change. You were sending broadcast throughout the country men specially versed in your ways. The field of gynecology, practically ignored before, was rich in material and in reward. The temptation to enter it was great, so great that soon the country swarmed with those who, seeing your success and that of your graduates, professed to know your methods, to do your work. These novices would have discredited themselves at once, but for the introduction into surgery about this time of one of its greatest aids, the antiseptic or aseptic method of treating wounds. It seems paradoxical that an evil could spring from so great a good, and yet this is just what happened. This was the manner of it. Acquiring the knowledge that, under the cover of asepsis, wounds might be inflicted with comparatively small risk, these adventurers ignored nearly every other requisite of surgery and boldly entered where wiser men were treading with painstaking circumspection, and, though perhaps they met with success, it was generally of that kind you have heard of so often in which, in spite of it, somehow the patient did not do well. Too often unsatisfactory and ill results remained. So this specialty, so rich in opportunity, became the prey of incompetence, of ignorance, and of qualified quackery, from one end of this country to the other. The reaction in the professional mind which has shown itself is but the natural outcome of the laxity with which the better and what should be the guiding forces in our specialty have viewed and even continue to view the pretenders and their work. General surgery, from motives quite as human as any actuating us, is doing its best to regain the field, to bring it all back within the domain of the general surgeon, and if it can do the work better, it should do it and will do it. But it cannot. That which it will do, however, is this: Educate men in its hospitals in the general principles of surgery and its practice, giving them such opportunities for special work as their material and time will permit, trusting to a fuller acquaintance and the development and perfection of a special operative skill from further opportunities gathered in the walks of subsequent private practice.

Facts are stubborn things and the sooner faced, accepted and acted upon, the quicker the victory. In the face of present surgical perfections, it is truer than ever before that no great and worthy success can be reached in any of the departments of surgery by any one deficient in a thorough knowledge of its principles, and the one who first studies these principles as exemplified in practical surgery in general, and then as exemplified in the region or regions he intends to specialize, will make the best specialist. With such a foundation, the greater the opportunity for special study, the higher the perfection. You, as the foremost exponent of gynecology, must therefore, in common with all like institutions, take all this into serious consideration. Not only is your own life bound up in it, but the welfare of the specialty itself, for, if it can be shown that the general surgical hospital is able to turn out as good specialists as you can, in time you will wither and die. But mend your methods and you will prevail and that speedily. Recognize that you cannot from the very nature of your restrictions give the broadest surgical training, that this can only be had in a general surgical ward, and require therefore that every one who holds a place upon your resident staff shall have had such training. But, as Art is long and time pressing, consider that one coming with such preliminary training does not need to give the time you now exact to acquire that degree of special training required for good work outside your walls. Shorten your term of service so as to tempt men already provided with the two years required in the general hospital to continue their studies with you, who, for the present at

least, can still show them every variety of the special ailments they seek to master. In this way you attract the best of those who desire to specialize in your direction; you set your seal upon them and turn them forth to battle successfully for your fair name and for that of the great specialty you represent.

The tendency of all specialization is to narrowness and to exaggeration of minutiæ. The safeguard is a broad foundation, a thorough knowledge of the principles governing the whole field, and a practical acquaintance with their expression as witnessed in disease, and their application as required in remedial measures. Let the specialist be rather like the carrier-pigeon, which, when set free, circles round and round, ever rising higher and higher as it studies the general field, till, finally, gaining its elevation, it singles from the horizon the special direction it will take, and then flies straight as the arrow from the bolt to the place where it would be.

The curse of our profession to-day is the half-baked, underdone specialist, and this country is full of them. By their exaggeration of detail and magnifying of minutiæ, they blind the credulous, prey upon the nervous and the apprehensive, and end in disappointing the patient and bringing discredit to the profession they claim to adorn. Their work has done more to stimulate the medical fads of the day, Christian Science and all kindred things, than all else put together. The weary sufferer, heart-sick from a hope that could but be deferred, inasmuch as it is often based on the ignorant assumptions of an adviser who claims, and in too many instances has, reputable professional connections, abandons himself to any cure which irregular quackery may suggest.

And now, in the evolution of this discourse, I have reached a point at which I can cease to speak from the standpoint of the doctor and address you from that of the patient; for, after all is said that can be said upon the subject of proper medical and surgical training, the patient is the principal objective. It is for him and for her that the doctor exists and in making one or many of them trustworthy and efficient, it cannot be at the expense of the welfare of your charges. Trustworthy and efficient—and what constitutes trustworthiness and efficiency in one whose life is given to the alleviation of human sufferings? Can he view this body as but a laboratory of chemical action and reaction in which only physical forces are concerned, to which his mission therefore is merely that of one who adds this or extracts that, as these forces rise or fall in life's struggles? Can he see in it but a stick or a stone to be hewed or chiseled as lacking symmetry may suggest, or does he see that the essence of the being stricken before him, the mystery in it, that calls itself "I," is a breath of Heaven; that "that body, those faculties, that lie before him, is it not all a vesture for that unnamed"? Yes! a thousand times, yes! Trustworthiness and efficiency in our calling mean this and more. For in consecration of the work, as a light to make radiant every step of this arduous and self-sacrificing calling, he who is efficient and worthy of trust must see, can only see, that there is but one Temple on earth, and that is the body of man, built by God and with man's consent placed in our hands for safe-keeping. Mercy, gentleness, and skill will always go hand in hand with those who, accepting the charge, see who is the real dweller in that Temple, the breath that is the breath of Heaven, and such men, fitted for life's struggles as you are so well able to fit them, will never do other than ennoble all they touch.

MEDICAL PROGRESS.

PEDIATRICS.

Infantile Hepatic Cirrhosis with Ascites.—A case of hepatic cirrhosis of biliary origin occurring in a child of eight years is reported by VARIOT and ROY (Gaz. hebd. de Méd. et de Chir., Dec. 19, 1901). The history presented neither alcoholism, malaria nor other morbid antecedent. The child when first seen had marked ascites, well-developed collateral circulation, a large, smooth liver extending beyond the free border of the ribs; there was no icterus, no splenic hypertrophy. The possibility of a tuberculous hepato-peritonitis was considered and tuberculin was injected to the extent of 5 milligrams, but the elevation of temperature which resulted was less than five-tenths of a degree. Absolute milk diet was ordered, but the abdomen continued to swell, passing from 60 to 81 centimeters in circumference. Paracentesis was practised, and in succession five, six, then seven liters of clear serous fluid were withdrawn, containing chiefly epithelial cells with a very few lymphocytes. Shortly after an exploratory laparotomy the child died. The liver presented biliary cirrhosis. The extrahepatic ducts were manifestly diseased and the gall-bladder was thickened and contracted. The microscopical findings confirmed the diagnosis of a cirrhosis of biliary origin. Of clinical interest are the absence of icterus, the lack of enlargement of the spleen, and the absence of any notable enlargement of the liver itself.

Etiology and Morbid Anatomy of Tuberculous Meningitis.—A series of 27 cases of tuberculous meningitis personally observed during life and subsequently examined in the dead-house furnishes the material for a paper by E. CAUTLEY (The Lancet, Dec. 21, 1901). No less than 22 of the 27 cases occurred during the first five years of life and only 5 during the second five years. In only one case was it stated that the mother was affected; in 22 cases it was definitely declared that there was no history of tuberculosis in the parents or in other children; in 4 cases the possibility of direct infection from a parent was present. In one instance only could injury be invoked as an etiological factor. In discussing possible channels of infection Cautley points out that in only two instances were the mediastinal glands normal; in these instances the tuberculous process was limited to the base of the brain. In 23 cases the mediastinal glands were caseous; the gland situated at the bifurcation of the trachea was most often affected. In 9 instances there was recent disease of the lungs, and in 12 cases extensive tuberculous disease of old standing. In only 2 out of the 12 cases of long-existing pulmonary disease was there evidence of infection of the mesenteric glands; from this fact the author's deduction is that the alimentary tract is not markedly susceptible

to infection by the human tubercle bacillus. Cautley does not take a very optimistic view of the prospect of operative treatment proving beneficial. In one-third of his cases there was no excess of fluid in the ventricles; in the remainder the fluid varied from a slight excess to a large amount. In many instances the cerebral tissues were soft and almost diffluent. Operative treatment can be indicated only under the assumption that the child is dying from coma induced by pressure. But many children died comatose in whom after death there was no evidence of increased intracranial pressure. Operative treatment would relieve pressure in only one-third of the cases, and even in these cases it would do little or no good on account of the softening so often present, which is dependent upon insufficient blood supply rather than on an excess of fluid.

Exophthalmic Goiter in a Child.—At a recent meeting in Paris, LEROY and VARIOT (Le Progrès Médical, Dec. 14, 1901) presented a child of four years, who six months previously had developed goiter, exophthalmos and tachycardia. For eighteen months he had had convulsions, and since the onset the symptoms had been much aggravated by an attack of whooping-cough. Strophanthus, bromides and salicylate were given with no result, and the child's condition was deplorable, when it was put on thyroid extract, one pill of gm. 0.1 (gr. ij) a day. From this time there was steady improvement in the condition. The authors also reported cases in which thyroid had done great harm.

Stone in the Bladder in Children.—Changes in the urine produce stones independently of the patient's age. M. F. PORTER (Annals of Surgery, Dec., 1901) reports a case of one in a female child four years old. The attacks were for a time considered of intestinal origin and later, after careful inquiry and observation, of renal origin. Soon after this stones were passed with the urine. The trouble began when the baby was only six months old; during the next two years she had a great deal of trouble of the same kind and passed in all perhaps a teaspoonful of stones, ranging in size from that of a millet-seed to that of a large grain of wheat. The attacks ceased and for a while she seemed to be without trouble. When about four years old the patient was seen again and it was learned that for some days while passing urine she had had attacks of pain in a way to suggest stone in the bladder. Under sounding the diagnosis was confirmed. The operation was done two days afterward and the stone removed by suprapubic cystotomy. The stone weighed when thoroughly dry sixty grains and measured seven-eighths of an inch in width and three-eighths of an inch in thickness. The bladder was immediately sutured with catgut and the external wound with silkwormgut and a small wick of gauze left in the lower angle of the wound. This was removed in forty-eight hours. The bladder was drained for five days with the retention catheter and the child was discharged from the hospital on the 12th day of April cured. At the time of operation she was three years ten months and twenty-five days old.

GENITO-URINARY AND SKIN.

Peculiar Bladder Condition.—The case of a man who never had had syphilis but had had chancroids several times and gonorrheal urethritis many years before, and was an alcoholic, is reported by D. P. ANDERSON (Montreal Med. Jour., Dec., 1901). He says that a black fluid was removed from the right side of the scrotum after it had been there for nineteen years. Physical examination is negative except for double inguinal hernia and enlarged prostate. There is no urethral stricture. Immediately after voiding urine, about two ounces of residual urine can be obtained by catheter. From six days to a month apart, this man has paroxysms coming on during the night, in which he has a desire to urinate and at the same time has a kind of dizziness, fluttering heart, and irregular, intermittent pulse. During the next three hours or so he is obliged to urinate frequently, passing altogether one-half to three-quarters of a vesselful of urine, which is like water and free from albumin or sugar. The irregular heart action lasts about twelve hours longer, when all symptoms disappear, leaving him as well as before. Sometimes defecation is as persistent as urination. The author ascribes this polyuria and tachycardia to a reflex from the bladder brought on by the enlarged prostate.

A New Remedy for Gonorrhea.—Of the two principal classes of drugs which have been used in the treatment of this disease, silver and its preparations have the objection of being irritating and painful, while the various astringent compounds are comparatively inefficient on account of their lack of bactericidal power. A remedy which combines the desiderata of both classes without their unfavorable adjuncts is submitted after clinical trials by E. JACOBI (Deut. med. Woch., Dec. 26, 1901). The preparation has also been used in the treatment of leg ulcers, from which procedure it receives the proprietary name of "crurin." Chemically it is chinolinbismuthrhodanat with the formula $(C_9H_7N.HSCN)_3Bi(SCN)_2$. There are found in the saliva certain substances, combinations of "rhodan," which have a marked antiseptic character and contribute largely to autodisinfection. The astringent properties of bismuth are also well known and it is upon the combination of these effects that the value of the remedy rests. The preparation of the injection fluid is as follows: One gram of the substance is rubbed up with glycerin and water, five grams of each, and then dissolved in 189 grams of water, the mixture being thoroughly shaken. In recent cases two or three daily injections of from three to five minutes each are usually sufficient to cause a disappearance of secretion and gonococci in from ten to twenty days without pain or irritation. If recovery be tardy a supplemental protargol injection may be used once daily. In chronic cases irrigations may also be added, although good results were obtained without them. It seemed best to continue the injections t.i.d. for from eight to ten days after all traces of a morning drop had disappeared and then diminish them gradually. In gonorrhea of the female 10-per-cent. suppositories, in urethra or cervix, have been found of value.

External and Internal Urethrotomy.—The general treatment of urinary extravasations according to a procedure which has not yet found its place in the text-books is described by REGINALD HARRISON (Edinburgh Med. Jour., Jan., 1902) in an article on the combined operations of external and internal urethrotomy. The first indication is to provide for the free escape of the extravasated urine by liberal skin incisions. The natural fistulæ do not suffice, however, to drain the bladder and the urethra must be made patent. The best method of drainage is by the perineal route, but in order to make it possible to perform the external urethrotomy upon a grooved staff of ample dimensions, the author first performs an internal urethrotomy of the stricture with the instrument of Maisonneuve. One cannot, however, remain content with the internal section, since it has been found to give rise to urinary fevers and to rigors, unless the perineal section be added to it. Drainage should be practised with a tube which tightly fits the perineal wound and admits of no leakage.

Operations upon the Prostate.—The results following operations for hypertrophied prostates have been

of doubtful utility until recently, and the dangers surrounding operations upon old men—the usual victims of this trouble—have been so great that many able surgeons are wont to advise "cleanly and judicious catheterism." H. LILIENTHAL (Med. Rec., Jan. 18, 1902) reports seven cases in which suprapubic enucleation has been performed; five patients recovered, one died and one received no benefit. He lays especial stress upon the value of making a suprapubic opening, even if perineal section be subsequently necessary. It is the only way in which one can gain absolute certainty as to the condition of the bladder; direct palpation and vision may then be used. Small nodules and masses may be quickly enucleated by this route and, if perineal section be necessary, important and valuable assistance can be given by a finger in the bladder. A complicating cystitis is also thus much better handled. Time is an important element usually in these cases, and the entire operation of suprapubic cystotomy and enucleation may be done in fifteen or twenty minutes. Free purgation and diuresis are important preparatory measures.

NEUROLOGY AND PSYCHIATRY.

Facial Hemiatrophy.—The report of a case of this rare disease in a woman of about twenty-four years, without hereditary taint, is made by L. F. FRANK (Med. Rec., Jan. 4, 1901). It first appeared in the forehead five years ago in the form of pigmented spots accompanied at first by pruritus, tingling and burning, and later by an atrophy of the affected parts. The left nostril, palate and tongue have become involved and recently the left auricle has become smaller and thinner than the right. Only one hundred cases have been reported and all authorities agree upon three etiological factors, namely, (1) the beginning in youth; (2) the predominance of the female sex, and (3) the great frequency with which the left side is affected.

Treatment of Tabes.—Fraenkel's movements have certainly resulted in marked improvement in many cases and, although the general course of the disease is probably not affected, several patients who had been bedridden for years were able to walk with the assistance of a cane after persistent attention to this method. E. BRAMWELL (Indian Med. Rec., Dec. 4, 1901) says that the patient should first be made to understand that his inability to walk is not due to muscular weakness, but to the inability to associate movements correctly; that the treatment is really a process of re-education and that it is not the muscular force which he uses that is of importance, but the care and precision with which he makes the movements. While lying in bed he should slowly raise his foot and touch with his toe an object held a foot or two above. The leg and thigh may then be flexed and after extension of the leg the same object may be similarly touched. These movements should be repeated again and again, constant improvement being sought for. When able to rise he should first be supported and simple deliberate movements tried. More and more weight is put upon the legs and the power of equilibrium trained. Walking along stripes, at first broad, then gradually narrowed and later marked off at intervals of one foot, may be suggested as a valuable exercise. A great number of exercises have been devised for the upper limbs, but these may be easily thought out for the individual case, always making them sufficiently simple in order that the patient may not become discouraged and that he may be impressed with the necessity of being accurate in his movements at the expense of speed and force.

Disseminated Sclerosis.—A case occurring with acute onset in a girl of eighteen years is recorded by J. MAGEE FINNEY (Dublin Jour. of the Med. Sci., Jan. 1, 1902). Within a month there were complete paralysis of legs and arms, loss of control of bladder and rectum, and bedsores on nates and over sacrum. After four months some of the power gradually returned, and she is now able to stand, and to walk some steps with but little assistance. The gait is spastic; knee, ankle, wrist and elbow reflexes are extremely exaggerated; Babinski's sign is marked in the right foot; tactile, thermal and algesic sensation is unimpaired. Coarse and irregular tremors affect the head and upper extremities when the smallest effort is made. Sometimes they are so marked that a glass of water cannot be carried to the mouth. The speech is slow, scanning, with some slurring of the words. The eye examination was made by H. Swanzy, who noted nystagmus, contracted field of vision, and atrophy of the outer portion of each optic disk. There was no retinitis, optic neuritis, or swelling of the disk. The patient has a complaisant cheerfulness, so characteristic in some of these cases, but no other evidence of mental weakness. The organic nervous diseases which may resemble disseminated sclerosis are as follows: Paralysis agitans, general paralysis, mercurial tremors, syphilitic disease of irregular distribution, ataxic paraplegia, intracranial tremors, and transverse myelitis. In a young woman whose manner and personal appearance suggest an emotional temperament, the suspicion of hysteria is sure to arise. The characteristic points in this case are optic atrophy without neuritis and with a disproportionate defect of the field of vision, nystagmus, syllabic speech, intentional tremor, exaggerated reflexes, spastic paraplegia and vesical paresis.

Hemiplegia.—Partial paralysis of sudden onset is not always fatal and hence treatment becomes a very important matter. J. TAYLOR (Lancet, Dec. 28, 1901), after discussing hemiplegia in adults, devotes his attention to it as it occurs in children, a matter often omitted by authors. He says there are two kinds. The first form is that of birth palsy, hemiplegic in type, usually bilateral in distribution, but occasionally unilateral. Its onset regularly occurs during birth, usually in first-born children and in cases in which the labor is long and difficult, or instrumental. The cause is meningeal hemorrhage; the affection must therefore be bilateral because the hemorrhage usually exists on both sides of the vertex. Occasionally, however, it is confined to one side only, and in this event causes true hemiplegia. The other form of hemiplegia in childhood, the ordinary so-called infantile hemiplegia, occurs in the early years of life and usually commences with a bilateral fit or a series of convulsions. The cause of this is uncertain. According to some it is an inflammation in the grey matter; according to others, a thrombosis in the arteries or in the veins. Sometimes there is athetosis and the patient is often subject to fits beginning on the paralyzed side. Another point is also of interest, *vis.*, the frequent maldevelopment of the paralyzed side, which becomes smaller in every way than the opposite side. The treatment of hemiplegia is divided into that of the onset and that of the results of the lesion. During the onset, if possible, the cause of the paralysis must be determined. If it is embolism, complete rest, light food, and extreme care to avoid any strain on the heart are the essentials. If it is hemorrhage, free purgation, light, easily-digested food, leeches to the temples if there is pain, and absolute rest are the main things. If it is thrombosis in advanced life, gentle catharsis together with cardiac stimulants and fluid diet are the best. If it is thrombosis in the young, then mercury and the iodide of potash must be energetically administered. Tumor and abscesses of the brain require appropriate surgical treatment, except that tumor may often be reached by active antisyphilitic remedies. The

results of hemiplegia require care as to the general condition of the patient. Loss of power and rigidity of the muscles call for massage and electricity. In all cases fresh air, gentle exercise and light, easily digested food are required.

Glycosuria and Insanity.—A tangible effort is being made to connect diseases and conditions which show changes in the nutrition of the body with insanity as being in the nature of cause and effect. W. R. DAWSON (Med. Press & Circ., Jan. 1, 1902) reports five cases in which such a connection appears to be more or less distinct. His conclusion is, taking all the cases together, their predominant characteristic was mental discomfort varying in degree and kind. The blood-pressure was high whenever taken during an acute stage of excitement. This association of glycosuria with melancholia was also found by Dr. Leeper, who recently published three cases and by Raimann and others also. The connection between the two therefore seems to be essential in cases of true diabetic insanity. The form of melancholia is that characteristic of cerebral anemia. If this is taken in conjunction with the atrophy found in diabetic brains, as a secondary morbid change, it becomes clear that the mental symptoms are due to cerebral malnutrition in whatever way this may be caused. It follows also from this that persistent glycosuria or glycemia, even if of secondary origin, is not unlikely to act injuriously on the nervous centers. He agrees with Raimann that the origin of the sugar in this second class of cases is in the digestive system and due to a deficiency in the capacity to assimilate sugar. Such a deficiency he has found to exist in a high degree in melancholia, although always present in acute confusion and other forms of insanity. It is merely a part of the general disorder of metabolism in the insane. Glycosuria is not necessarily a sign of bad prognosis in insanity. Of the author's case seven patients five made good recoveries and a sixth promises to get well.

Epilepsy; Definition, Symptoms, Prognosis and Treatment.—"Epilepsy is a disease of which we know extremely little definitely and with certainty nothing at all. Up to a certain point it is agreed as to what cases are to be included under the term; there is much real and trustworthy knowledge as to the etiology of the disease, but its pathology is largely conjectural and its treatment mainly empirical." In these admirable words W. H. BROADBENT (Brit. Med. Jour., Jan. 4, 1902) paints a clear word-picture of this too-little-known disorder. One cannot read the definition without feeling a glow of hope that some day the veil will be lifted. Many epileptics pass through life without the disease being recognized. This may occur in the more-or-less frequent nocturnal form of the lesion—an important deduction can be made from the fact that the atack almost invariably occurs during the minimum cardiovascular activity. It is extremely rare that the seizures take place during mental or physical exertion or excitement. This has a practical as well as a theoretical bearing, for it is not necessary to forbid epileptics to take exercise or to ride, or even to cycle in moderation. What can be the cause of the convulsions which are an invariable accompaniment of the disease? What is a convulsion? It might be called the result of an excessive and disorderly liberation of nerve energy. The precise nature of this force is not known, but it can only be a transformation of forms of energy which are more or less understood, and everything points to a chemical change in the nature of oxidation as its source. In any event, from whatever point of view the evolution of nerve energy is considered, the conclusion suggested is that in the grey matter there is accumulated a substance of an explosive character ready to liberate energy not by gradual combustion, as of coal, but by a sudden readjustment of chemical affinities, as of nitroglycerin. The prognosis turns mainly on whether the case is one due to hereditary inherent tendency or to causes extraneurotic. It is absolutely hopeless if with the liability to recurrent attacks of convulsions there are other evidences of a low type of nervous organization such as moral or mental depravity, microcephalism, or, indeed, any faulty construction of the cranium. Again, it is bad if the fits have begun in childhood or at or soon after puberty. If, however, the patient has mental and physical vigor; if some serious exciting cause has preceded each attack, if the fits have not begun until late, it may be presumed that the tendency to epilepsy is not strong and that it may possibly be held in abeyance. More important than either of the preceding is the condition of the circulation. A low tension is characteristic of the disease. If it has a relatively high tension for the age of the patient there is good ground for hope of recovery. The treatment is chiefly dietetic and hygienic. Should an epileptic boy or girl go to school? Almost always, if the fits are not too frequent and particularly in the case of boys, whose sensibilities are not so keen as those of girls. Bromides must not be given as mere routine, and if the intervals are six weeks or more the administration should be intermittent. The cases in which there is cardiovascular instability offer the greatest opportunity for brilliant results. At night they should be fed hot beef-tea with cayenne pepper or milk to which spirits of ammonia have been added. Epilepsy will repay further study. Jacksonian has been differentiated from true epilepsy; further distinctions will be established, so that in the future one will speak of "the epilepsies" rather than of epilepsy.

OBSTETRICS AND GYNECOLOGY.

Treatment of Adnexial Inflammations.—The conservative treatment of inflammations of the adnexa is thus summarized by R. PICHEVIN (Jour. d. Méd. d. Paris, Dec. 22, 1901): In acute inflammations, (1) rest in bed; (2) vaginal irrigation under low pressure, with hot antiseptic solutions, care being exercised that the return of the fluid is assured; (3) relief of pain by hypodermics of morphine, opium, suppositories, or injections of a solution containing laudanum; (4) limitation of inflammation by ice-bladder applied to the lower part of the abdomen; (5) wet cupping and leeches at the level of the iliac fossa are sometimes helpful; (6) quinine sulphate for fever; (7) purgatives, laxatives or enemata for constipation; (8) milk diet; (9) support of general strength, alcohol being used for depression. In the majority of cases this line of treatment suffices to abort more serious trouble, or at least to tide the patient over to a safer time for operation, should this become necessary. In subacute and chronic cases, much may be done to relieve and, in many instances, cure if the patient is in a position to give time to the treatment. In such cases the treatment is thus outlined: (1) Prolonged horizontal decubitus is contraindicated as producing venous stasis. (2) Coitus should be prohibited as tending to increase congestion. (3) Revulsion, by iodine, thermocautery or vesicant, is serviceable. (4) Glycerin, pure or combined with antiseptics, such as iodoform or salol, introduced in the vagina through saturation of cotton or sterilized lamp-wick, produces depletion by osmosis of serum, thus assisting in resolution of inflammations.

(5) "Colomnization," much used by Lyons physicians, has yielded good results. By this method the organs are supported by packing the vagina firmly with strips of aseptic or antiseptic gauze or sterilized lamp-wick, saturated usually with glycerin. The packing should be left *in situ* for two or three days, when it should be removed, an antiseptic douche given, and the packing replaced. This treatment should be employed for a long period, with occasional intermissions of two weeks, during which vaginal irrigation should be practised. (6) The effect of this method is enhanced by enveloping the lower part of the abdomen in cotton, over which is applied a rubber bandage in such a manner that it shall exert slight compression. This, with the vaginal packing, tends to immobilize the organs and assists the aqueous depletion through the glycerin, by slight external sweating. (7) Hot vaginal irrigation, the patient being in the recumbent position, is valuable; the same is true of high rectal enemata administered after evacuation of the rectum. (8) Other measures include electricity, uterine massage, and hydrotherapy.

Delivery in Hypermegaly.—A method used in the delivery of an unusually large fetus in which the shoulders became impacted in the pelvis after birth of the head is described by D. J. LARRU (Rev. d. Med. y Cir. Pract., Dec. 21 and 28, 1901). The patient was a woman of normal development and measurements who had previously given birth to children of remarkably large size. Labor pains were severe and the head rotated and descended slowly, but was expelled naturally; after the birth of the head, however, pains ceased and despite all efforts to stimulate uterine contractions there was complete inertia and it was found necessary to interfere. An attempt was made to draw down the anterior shoulder by hooking the finger into the axilla, but without success; the same maneuver failed with the posterior shoulder. The following method was used with satisfactory result: The index and middle fingers were introduced through the posterior commissure, the posterior shoulder pushed well up, fingers withdrawn, and head depressed strongly to the mother's anus, pressure being exerted upon the occipital insertion of the trapezius and mastoideus, with the result that the anterior shoulder glided easily under the pubic arch, the bisacromial diameter being diagonal to the vulva, and after half of the anterior shoulder was born the posterior followed and the rest of the body was delivered without trouble. The child measured 25 cm. from shoulder to shoulder and was 60 cm. in length.

Prolapse of the Cord.—This condition is a great misfortune and unless discovered early and treated successfully is apt to be fatal to the child. Any new method therefore of replacing and retaining the prolapsed cord is valuable. H. HENNE (C'blatt. f. Gynäk., 1901, No. 51) treated a case with ease and success in the following manner: After all other well-known means had failed the cause of such failure was found to be the attachment of the placenta, which was very low down and caused the head of the child to remain in the right aspect of the canal. The method he followed was suggested by the retention of loops of intestine away from the operative field in abdominal sections by means of gauze pads. He took a clean towel, soaked it in a one-per-cent. solution of lysol and squeezed it dry. He folded this into a pad, passed it into the vagina and then, after replacing the cord, gently forced the towel up into the uterus in such a position that the cord rested upon it and was retained by it. The procedure was easily carried out with the help of profound narcosis. The head of the child, of course, had to be pushed upward into the uterus. The intra-uterine hand of the operator was maintained within the canal until pains again appeared. It then guided the head of the child into its proper position and rendered the action of the towel more satisfactory. In this case the remainder of the delivery was normal and entirely free from a recurrence of the prolapse.

EYE, EAR, NOSE, AND THROAT.

Chronic Nasal Disease.—Although the inferior turbinate bone has usually been assigned as the basis for most chronic nasal diseases, it has often been noted that many cases exist which must be entirely out of its influence. C. H. BAKER (Phila. Med. Jour., Dec. 28, 1901) calls attention to the fact that the middle turbinated body has a much greater influence on the course and progress of these diseases, mainly on account of its intimate anatomical relations with the meati and accessory sinuses of the nose, the olfactory nerve and the most sensitive portions of the septum. The meati are readily obstructed by acute inflammations which soon become chronic, resulting in formation of granulation tissue and, later, polypoid growths. The author recommends removal of the middle turbinate in addition to taking out the polyps, as the latter are often thus concealed. Other indications for this procedure are: (1) Sinus occlusion by swollen mucosa which does not respond to cleansing and disinfection; (2) fetid crusting of discharges in the upper portion of the nasal chambers; (3) "bullous hypertrophy" of the bone; (4) nervous disturbances (severe sneezing, nasal asthma, hydrorrhea, headache, tinnitus) due to contact of bone with the most sensitive part of the nasal mucosa; (5) vasomotor rhinitis, as an adjuvant in obstinate cases. His operation is briefly as follows: After a thorough cleansing, an 8-per-cent. solution of cocaine is applied, followed by suprarenal extract. By means of Holmes' middle turbinate scissors the attachment of the bone to the lateral wall is divided from before backward. The cavity is packed with iodoform gauze which is removed on the following day. Frequent cleansing with borax solution is done until healing is complete; the latter may often be hastened by insufflation, the author recommending "dermatine," a lead iodide compound.

Tinnitus Aurium.—So serious may this symptom of disease become that it may lead to suicide or insanity. S. M. YUTZY (The Phys. and Surg., November, 1901) divides tinnitus into the vascular and the membranous forms. The former is due to overfilled or underfilled blood-vessels causing a disturbance of pressure-equilibrium of the labyrinthine fluid. The tinnitus of quinine, salicylic acid, etc., is due to a lowered blood-pressure, as is also the tinnitus of anemia. In membranous tinnitus the tympanic membrane is drawn inward; this is due to inflammatory affections of various kinds or to closure of the Eustachian tube. A valuable point in differentiating the vascular from the membranous tinnitus is that persons afflicted with the latter form hear conversation better when noises are about them, as in a railroad train. This is due to the fact that the numerous sound waves act on the membrane and steady it. Noises have no effect in controlling the flow of blood through the vessels, and hence the hearing is usually made worse by the presence of noises in cases of vascular tinnitus. If more attention be paid to the cause of these affections the treatment will be more satisfactory and more beneficial.

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SATURDAY, FEBRUARY 1, 1902.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE ninety-sixth annual meeting of the Medical Society of the State of New York has had its usual crowded sessions. There could be no better index of the thorough-going desire for professional relations scientific and social on the part of the medical men of New York State and no surer sign of their interest in progressive medicine than the faithful attendance at these meetings. From the beginning of the first until the end of the last session readers of papers were greeted by large and attentive audiences.

This was the best attended meeting in several years. The program of the session was an extremely interesting one and notable even for the State Society. That the organization is able to hold two such meetings as the semi-annual session in New York City in October and the present one, only four months later, is a good sign of vigor of society life and of enthusiastic interest on the part of its members.

The features of the scientific program were the symposia on paresis and on diseases of the pancreas. It is agreed that, while paresis is not so frequent in this country as in the older countries, the disease is certainly on the increase among us. This increase is not of an immediately alarming character, but it calls for the most serious attention as to the possible prophylaxis of the dread disease. There is practical agreement among the authorities who read papers on the subject that syphilis is the main cause of the disease. Other conditions may contribute to the etiology. Overwork and mental anxiety are undoubtedly contributing factors. Excesses of every kind play a rôle, though alcoholism is blamed much less in the matter than formerly. Syphilis is, however, the manifestly determinative agent that produces paretic pathological changes. No profession or trade is exempt from the disease and in America, at least, the proportion of professional men and brain-workers is not higher than that of tradesmen of all classes, from the wholesale merchant to the country baker.

The obscure subject of diseases of the pancreas is being gradually brought into the light and the present review of it will do much to illuminate practical details in the application of recent scientific observations. In addition to these symposia a notable contribution was that of Dr. Noble of Philadelphia on the treatment of pelvic suppuration. His paper brings out the fact that conservatism is the watchword in present-day gynecology. It illustrates a phase of medical and surgical advance that is not so encouraging, however, since it shows that the accepted methods of treatment for pelvic suppuration of the present time are much nearer the methods of a quarter of century ago than they are to most of the intermediate steps by which the conclusion has been reached. Verily the pendulum swings to and fro in human progress and the inevitability of reversion to opinions once thought gone forever, but that contained a precious germ of truth never to be lost, is illustrated nowhere more forcibly than in medical advance.

ROYAL INTERMARRIAGE AND HEALTH.

NOTWITHSTANDING the persistent rumors of the ill health of King Edward VII. some time ago, there have been but faint-hearted denials of the reports that he was ailing, and these have concerned themselves chiefly in regard to his throat. It is said that official action in the matter would only give body to the rumors and arouse sensational conjecture. There are no grounds for thinking that the King is affected by laryngeal cancer, in spite of the very circumstantial reports on the subject in the sensational press, but there seems good reason to think that for a

time there was some pathological condition that disturbed the new monarch not a little.

Writing from London at the beginning of last month Mr. Justin McCarthy, the London correspondent of *The Independent* said: "It is quite certain that the King has been suffering from physical troubles of some kind, though I cannot hear that there is any trustworthy evidence for the apprehensions which are so commonly and so positively made public." Mr. McCarthy hints further that the basis for some of the rumors seems to be that the King has become persuaded that he is not destined to live to the time appointed for his coronation. This phase of the popular report finds some sanction in the fact that the King has lost within a comparatively short time a brother, the Duke of Saxe-Coburg, and a sister, the dowager Empress of Germany, from the dread disease, cancer, to fear of which persistent rumor now attributes his own depression of spirits.

Some of the radical English and Irish papers have recently suggested that at least the predisposing cause of the illnesses which are so common in the royal families of Europe at the present time is their utter disregard of the great law of Nature that discountenances the marriages of near relations. Ordinarily such remarks might be passed over with the reflection that political bias easily led to the assumption of general truths from particular instances. Mr. McCarthy, whose intimate acquaintance with contemporary history is well known by the many readers of his "History of Our Own Times," lends the weight of his authority to these declarations. He says: "At the present time there is hardly a European imperial or royal family which is not oppressed by serious and boding illness of some kind and it is only reasonable to say that some explanation of this fact may be found in the system of intermarriage."

To Americans generally it will, we think, come as a distinct surprise to learn on Mr. McCarthy's authority that with the exception of the King of Sweden, a descendant of Bernadotte whom Napoleon raised from the ranks and later made King, there is not a single important ruler in Europe who is not descended from Mary, Queen of Scots. In Macbeth, which was evidently written with the idea of courting the favor of James I., the first Stuart ruler of England, Shakespeare puts into the mouth of the witches this prophecy to Banquo from whom the Stuarts are by legend descended: "Your children shall be kings." Even the most obsequious of courtiers could not have anticipated how literally true this compliment to the Stuarts through King James was to prove. It is certainly a curious historical fact that the dynasty of the Stuarts, "in many ways the worst dynasty," as McCarthy says, "that ever ruled over England," should have left so many descendants among the reigning houses of Europe.

Meantime there is for the student of medical anthropology the spectacle of a series of inbreeding intermarriages that demonstrates the dangers and effects of marital consanguinity. Perhaps the lesson of the necessity for exercising more care as regards the relationship and other qualities of marital partners may thus be taught by example, if it cannot be enforced by the legal measures that are now so commonly suggested. In a word, the history of the present reigning families of Europe is an open book in which he who runs may read the evils of marriage where new blood is not constantly introduced to modify the degenerative tendencies of the original stock. The lesson may be learned better from a "horrible example" than from the cold logic of statistics on the subject.

A RECENT REPORT FROM THE CRAIG COLONY.

THE eighth annual report of the Craig Colony for Epileptics has just been issued and the report of the Medical Superintendent, Dr. W. P. Spratling, contains matter of practical value to those interested in making public provision for this class.

Prior to the establishment of the Craig Colony there was no institution of the kind in America, and it is still the only one built along true colony lines; consequently we are interested in its development.

It is evident from the report that all persons having epilepsy are not fit subjects for colony life, for it seems quite conclusively shown that many of them are so unsound in mind as to make it, not only useless, but dangerous to permit them to live in an institution in which complete liberty is the privilege of every patient. The study of the mental condition in 1,070 cases, grading them as "good," "fair," "feeble-minded," "imbecile," "idiot," and "insane," and the analysis of the study that follows give some idea as to the class of epileptics which can be successfully colonized and that which cannot.

It would seem that more good could be done if the colony could receive patients whose dis-

ease was not of such long standing. Only 1½ per cent of the entire number had been epileptic less than a year before admission; while in the vast majority of cases the disease had existed for from five to forty years and over.

The study of "The Causes of Epilepsy," analytically made in over 1,000 cases, is of value, for one thing, in showing the great importance that hereditary factors seems to play; and, if there is anything to be learned from such a study, it ought to be the necessity for seriously considering the question of placing restrictions of some sort on the marriage and intermarriage of such people.

The report shows the treatment of patients to be along the broadest possible lines, and this is as it should be, when we remember that the epileptic and his disease should be regarded as a unit and that good results can come only from a recognition of this fact and the treatment of the individual and his disease at the same time.

We note the absence of any enthusiasm in reference to the surgical treatment of epilepsy. At the Colony they seem to think that the genuine disease is not so circumscribed a thing that it can often be removed by surgical intervention. Reference is made to the possible value of serotherapy in the treatment of selected cases, and we expect shortly to publish in the MEDICAL NEWS the Craig Colony Prize Essay on this subject by Dr. Carlo Ceni of Italy.

It is also pleasant to note the freedom of the report from the usual list of long cut-and-dried statistical tables that we have always thought took up much valuable space in such reports, without imparting any knowledge of a useful and practical kind.

The report speaks hopefully of the work of the year and progress made in the treatment, education, occupation and classification of patients. It has been learned that, without provision for occupation and classification, any scheme of this sort must fall far short of attaining the ideal. The *per capita* cost is given at $164.46 for the year, which to us seems very low, considering the scientific and educational work that is done, and we hope that economic reasons at Albany may not reduce it any further. The Colony now has a population of 750 patients, while new buildings are to be opened shortly for 100 additional patients.

THE BOGEY STATE.

IT does not speak well for the tender mercies of the State that the people are afraid to trust the care of their helpless ones to its political visitations. Despite the would-be pacification in the altered terms of the Brackett-Rogers Bill, the fact remains that it abolishes the local Boards of Managers of the State Hospitals for the Insane; and the State Commission in Lunacy threatens like a Bogey to swallow the control and leave no trace behind it of that excellent system that has been the pride of the State.

The scare is real. It has taken one hundred people to Albany to protest against the Bill. It has called forth decided opposition from the most influential clergymen in the State. It has brought out a storm of opposition in the daily press; and it has agitated every one who knows anything about the control of an institution under the board of manager system versus the control by a commissioner. We venture to express an opinion that the present Commissioner of Lunacy was not aware that his unsullied reputation would be used as a cat's-paw to pull the chestnut of control out of such a ticklish place. We know well that he has no private ends to push and that power would not be abused by him; but once the authority is vested in the State Commission in Lunacy, how long will that office be open to a man who is a disinterested public-spirited physician?

ECHOES AND NEWS.

NEW YORK.

Health Advisory Board Organized.—The Health Department's new Medical Advisory Board has organized by electing Dr. Edward G. Janeway chairman, Dr. T. Mitchell Prudden secretary, and an executive committee consisting of Drs. Janeway, Prudden, Bryant and Brannan. Of the eleven physicians comprising the board, all but one were present at the first meeting.

Reduction in Death-Rate.—A reduction in the city death-rate was again shown last week, when the rate was 20.71, against 24.33 for the corresponding week in 1901. By excluding the deaths of non-residents and of infants under one week, the rate is reduced to 19.56. For the previous week the rate was 21.24. Cases of smallpox numbered eighteen; there were thirty for the previous week, against an average of twelve cases for the twelve weeks immediately preceding.

Opening of the New Lying-In Hospital.—The beautiful new hospital of the Lying-In Society was formally opened and the first patient admitted this week. There are eight floors and 140,000 square feet of floor-space. A tour of the structure reveals many features in the equipment that are unique in hospital building. The dimensions of the structure are 184 feet on Second Avenue, 166 feet on Eighteenth Street, and 83 feet on Seventeenth Street. Light comes from all four sides and through 1,159 windows. In the electrical system there is a device by which the light of the incandescent lamps can be made bright or dim at will. In the cellar are the engine, boiler, pump, and dynamo rooms and the machinery used for ventilating and refrigerating. The basement contains the out-patient de-

partment, autopsy-room, chapel, and fifteen bedrooms. On the first floor are physicians' rooms, library, and executive offices, while the second floor is given up largely to the nurses. The septic department, on the third floor, consists of twelve bedrooms, serving, operating, and dining rooms. Entrance to this isolated ward can be gained only by going through an open corridor. The fourth, fifth, and sixth floors are identical, each containing sixty-two beds for patients. At the foot of each bed is suspended a cradle. In addition to the wards, there are also private rooms for patients. A summer roof-garden and a winter sun-garden, enclosed in glass, are on the seventh floor, overlooking Stuyvesant Park. The new hospital is the gift of J. Pierpont Morgan, who at first gave $1,000,000 for the purpose. The price of building materials then rose and a larger sum became necessary. Thereupon Mr. Morgan increased this gift and the amount he has given to the hospital now amounts to $1,250,000. He has also completely furnished the institution with linen.

Loomis Laboratory Wins.—The decision of Justice Truax of the Supreme Court dismissing the suit brought by the New York University to recover the site and building of the Loomis Laboratory from the Loomis Laboratory Corporation has been affirmed by the Appellate Division. The laboratory had been used by the students of the University for several years and the Trustees of the University contended that although the title was held in the name of the Loomis Laboratory Corporation, the property was impressed with a trust requiring that it be used for the medical side of the University, which in equity was the owner. Col. Oliver H. Payne had given the site and the money for the building and equipment to the late Dr. Alfred L. Loomis, then connected with the University. The name of the donor was kept a secret for a long time. Col. Payne testified in the trial of the case that the University was not named in the transaction with Dr. Loomis. He had given the property and money in trust to Dr. Loomis for a Loomis Laboratory with the idea that the laboratory should afterward be conveyed to a corporation to carry on its work, which conveyance was made as he requested. He testified that at the time he hardly knew that there was such an institution as the New York University. The court says that the use of the laboratory by the University for several years does not establish a trust in its favor, as it was not shown that there was any trust of the sort going with the gift.

No Changes at Bellevue.—The Board of Trustees of Bellevue and Allied Hospitals, which was appointed by Mayor Low this week will assume control on February 1st of Bellevue, Fordham, Harlem, Gouverneur, and Emergency Hospitals. The functions of the Trustees are exactly the same as those which the Commissioner of Charities exercised over the hospitals before the revised charter went into effect. The nature of some of the general problems of administration has been made familiar to the public by the official or unofficial inquiries made from time to time. The treatment of the insane pending examination for admission to the State hospitals, the fees of the Examiners in Lunacy, the alleged hurried transfers of dying patients from other hospitals to Bellevue, the prompt issuing of notices of deaths, the alleged private "deals" between morgue attendants and outside undertakers, and the improvement of the old buildings are among them. The Trustees wish to have it made known that they have no appointments to make. The entire subordinate staff of the hospitals is protected by civil-service rules, and, moreover, there are no important vacancies to be filled.

Clergymen's Protest Against Changes in the Control of the Insane.—The following protest against the proposed change in the laws affecting the control of the insane has been sent to Gov. Odell:

"To the Governor of the State of New York:

"SIR: We, the undersigned, ministers of religion in the City of New York, unite in protesting against the proposed change of the laws respecting the care of the insane.

"It will centralize all administration, which experience and philosophy unite and declare should be in a democracy as far as possible localized; it will deprive the State of the voluntary, spontaneous service of a considerable number of men and women of large experience and philanthropic character; it will tend to lessen public interest in the charitable work of the State, which ought to be increased rather than lessened; and it will build up a service in the hospitals which will be liable to change with every change of political administration. In our opinion there are no corresponding advantages to counterbalance these evils. The authority now possessed by the central body, the Lunacy Commission, is entirely adequate to prevent local extravagance." This protest is signed by Bishop Potter and a dozen or more of the most prominent clergymen in the city.

Beneficial Work of Consumers' League.—The Consumers' League, of which Mrs. Nathan is the president, showed at its annual meeting, held on January 23d, that it had accomplished important reforms in the matter of sanitary regulations in the manufacture of garments and in the proper and healthful provisions for women employed in stores. The cordial coöperation of the new Board of Health was shown in the fact that Dr. Lederle was one of the speakers. He announced that he was prepared to enforce stringently the Mercantile Employees' Law which has existed since 1897, but which has been practically a dead letter through non-enforcement.

The "Bracket Bill" Denounced.—At a special meeting of the Eastern Medical Society of the City of New York, held at the Educational Alliance on January 24, 1902, Dr. Wm. S. Gottheil introduced a resolution emphatically protesting against the "Bracket Bill" to regulate and legalize the practice of Osteopathy. The resolution was seconded by Dr. A. E. Isaacs and the secretary was directed to send a copy of the resolution in full to the Judiciary Committee of the Senate.

Mount Sinai Hospital Work.—At the annual meeting of the Directors of Mount Sinai Hospital yesterday the old officers were reelected, with the addition of electing David Wile as Second Vice-President. The annual report showed that 6,369 people had applied at the hospital during the past year for treatment. There were 2,386 free patients and 600 pay patients admitted. Because of lack of room 430 people were refused admission. The number or accident cases admitted, which were not included in the foregoing, was 523. There was a daily average of 211 patients. The total number of patients since the institution was founded, in 1852, is 70,537. In the dispensary there were 83,955 consultations, and 80,064 prescriptions were filled. The daily average of consultations was 276. The total receipts for the year were $136,087 and the expenditures $138,087. The institution has $140,000 invested in bonds and mortgages; cash on hand $11,000 and has a building fund of $1,294,281. The Directors reported that they received $38,000 last October in the form of a donation from a gentleman and his sister who were not of the Hebrew faith. They gave the money in recognition of the non-sectarian work of the institution.

Wreck of the Manhattan Eye and Ear Hospital.—At the time of the explosion in the subway, on January

27th, there were sixty patients in the Manhattan Eye and Ear Hospital. This hospital is directly opposite the subway works, and is less than sixty feet from the mouth of the shaft. Almost every patient, nurse, and interne suffered from the shock or was cut by falling glass. Every window was shattered, the big skylight was smashed, and several doors were dislodged from their hinges. The patients were removed immediately from the hospital, and most of them sent to the Eye and Ear Infirmary. The hospital is untenable and will be abandoned entirely. Most of the plaster is shaken from the ceilings in the rooms nearest the street, and one patient, who lay in bed helpless, was covered from head to foot with the mass that fell from the walls about him.

Stony Wolde Sanatorium.—The first annual meeting of those interested in the establishment of the Stony Wolde Sanatorium was held on the morning of January 22d, at the residence of Mrs. George F. Shrady, 8 East Sixty-sixth Street. The President, Mrs. James E. Newcomb, read a report giving the results attained since the organization was founded, a year ago, to provide a sanatorium for the treatment of persons suffering from incipient tuberculosis who are unable for pecuniary reasons to procure proper climatic treatment. To carry on the work, ten auxiliary associations have been formed in New York City and suburbs which have a membership of 500. Through these auxiliaries more than $48,000 has been raised for the sanatorium which will be built in the near future. The Lake Kushaqua property where the institution will be situated was bought last September. It is in Franklin County at an elevation of 1,730 feet above the sea, and comprises about 1,200 acres.

Consumptive Hospital Plans.—The Trustees of the new State Tuberculosis Hospital held their annual meeting in Albany, on January 22d, and reelected the old officers, with Howard Townsend of New York as president. The Trustees called upon the Governor and paid their respects, after which they continued their meeting, devoting the day to the completion of plans for the hospital buildings and to the closing of the contracts for the purchase of the Raybrook site.

Cold Brooklyn Cars.—Dr. Joseph H. Raymond, Health Officer in charge of the Borough of Brooklyn, has written to the Health Office authorities in Manhattan to secure their aid in the adoption of an ordinance by the Aldermen that will be binding on the Brooklyn Rapid Transit Railroad Company in the matter of keeping their cars comfortably heated in cold weather. Dr. Raymond obtained on January 25th statistics of local car temperatures by assigning several of his sanitary inspectors to take trips over the various lines running between Newtown Creek and Coney Island and from the river front to Ridgewood. The inspectors found the temperature inside the cars ranging from 24 degrees, which is 8 degrees below freezing, to 40 degrees, which is 8 degrees above freezing. The highest temperature discovered in their travels at any time on any of the Brooklyn Rapid Transit cars was 54, and unofficial figuring on their returns developed an average temperature of about 34 degrees inside the cars, just 2 degrees above freezing. The Health Office inspectors, on their rounds, ascertained that the four lines of the Coney Island and Brooklyn Railroad, in which Police Commissioner John N. Partridge is said to be interested, and which are operated in competition with the Brooklyn Rapid Transit, provided an average temperature of over 52 for its patrons. No fault is found with this company.

To Protect Dairy Products.—A bill designed to prevent the adulteration of dairy products has been introduced by Senator Slater. It provides that no person shall add to any dairy product intended for human food or drink any substance containing formaldehyde or salicylic acid, or other harmful substance or substances, nor shall any product containing such acid be offered for sale.

School for Milk-Dealers.—Because he has received numerous complaints from retail milkmen with relation to the practices of the wholesalers, who, they claim, are busy adulterating the milk, Dr. Raymond of the Health Department in Brooklyn has decided to establish a school of instruction. He has applied to Borough President Swanstrom for the use of the Court of Special Sessions, and when that is given will have Dr. Williams, one of his assistants, demonstrate the use of the lactometer, so that the men themselves can detect any adulteration, and make specific complaint to the Department.

Warning Abattoir Owners.—Following up the principle that induced the Health Board to deny the application of Swift & Co., for permission to build an abattoir on Forty-fourth and Forty-fifth Streets, east of First Avenue, a letter has been sent by Commissioner Lederle to all the more important companies which have slaughter-houses in that section, notifying them of complaints of constant annoyance from existing slaughter-house plants and warning them that the condition of affairs complained of must be remedied before the advent of warm weather. Commissioner Lederle reminded them that they were acting under a permit revocable at the pleasure of the Board of Health, and that all such permts would be revoked whenever the Board of Health should become satisfied that conditions in operation in the slaughter-houses were prejudicial to the public health.

New York Academy of Medicine.—A stated meeting will be held Thursday, February 6th. The following program is anounced: Resolutions on Action of Treasury Department Declaring Pulmonary Tuberculosis a "Dangerous Contagious Disease," and Debarring Consumptive Aliens, Rich and Poor, from Entering the Country. Paper on the Phenomenon of Inhibition, Its Possibilities in Pathology, Especially in Its Relations to the Diseases of Myxedema and Exophthalmic Goiter, by S. J. Meltzer. Discussion will be taken part in by Drs. Charles L. Dana, Isaac Adler, M. Allen Starr, William H. Thomson, F. Peterson and William Hirsch.

Brooklyn Medical Society.—The following were elected officers of the Brooklyn Medical Society at the annual meeting held in January, 1902: President, William H. Haynes, M.D.; Vice-President, Malcolm E. Parrott, M.D.; Recording Secretary, Hugh E. Rogers, M.D.; Corresponding Secretary, Alfred Bell, M.D.; Treasurer, Albert H. Brundage, M.D.; Librarian, Lewis E. Meeker, M.D.

A Suit for Malpractice Against Dr. Thos. H. Manley.—In Part IX. of the New York Supreme Court, before Judge McLean, an action was brought by Selina Schneider against Dr. Manley, for alleged malpractice in the unnecessary removal of a joint of the thumb. After a trial lasting two days the jury deliberated five minutes and brought in a unanimous verdict for the defendant. The most unfortunate feature of the affair was the fact as brought out in the evidence, that the prosecution was instituted by the advice of a fellow practitioner.

PHILADELPHIA.

Smallpox Statistics.—For the week ending January 25th there were reported 90 new cases of smallpox

and 19 deaths, an increase of 8 cases and 3 deaths over those of the previous week. There are now 443 cases under treatment.

Increase in Typhoid Fever.—The cases of typhoid fever for the week ending January 25th were 117, an increase of 36 over the previous week. Much of the increase comes from West Philadelphia. The water supply is worse there than in any other section of the city.

Isolation Hospitals.—Dr. J. Madison Taylor, who has labored indefatigably toward securing pay hospitals for contagious diseases, in a recent statement to the public admits that the organization for that purpose has met with but little encouragement. He states that the rapidly-increasing number of well-to-do people who live in apartments or hotels makes an isolation hospital an absolute necessity and its realization a matter of time.

Patients Owed Him $50,000.—Dr. H. U. Umsted died January 25th at Phoenixville, where he had practised medicine for fifty-five years. At the time of his death he had $50,000 in uncollected bills on his books.

Officers of County Medical Society.—The annual election held January 15th resulted as follows: President, Dr. Thomas H. Fenton; Vice-Presidents, Drs. F. M. Perkins and J. Chalmers Da Costa; Secretary, Dr. Elwood R. Kirby; Assistant Secretary, Dr. William S. Wray; Treasurer, Dr. Collier L. Bower; Censor, Dr. W. Joseph Hearn.

Dairy and Food Division of the Department of Agriculture.—At a recent meeting of the State Board, Commissioner Cope presented a statement of the work done in 1901. The number of samples of oleomargerine, butter, cheese, milk, etc., analyzed was 3,019. Of the suits brought against dealers there were 1,159 oleo cases and 192 of other products.

Philadelphia County Medical Society.—At the meeting held January 22d, the guest of the evening was Major Louis A. La Garde, Surgeon United States Army. Dr. La Garde gave an instructive talk on "Gunshot Wounds of the Knee by Reduced Caliber Projectiles." Sixty-two cases were reported. The mortality-rates were compared and attention called to the difference in the number of amputations. Many skiagraphs were shown, an interesting one being that of a soldier shot by a Filipino, the ball entering behind the ear and lodging in the tongue. This is the fifth case of the kind on record. In discussing the subject Dr. W. L. Rodman said that in wounds met with in civil practice he seldom amputated unless there was extensive injury to the vessels or nerves.

South Branch County Medical Society.—The meeting of January 24th was devoted to a symposium on tuberculosis. Dr. P. S. Donnellan spoke of laryngeal tuberculosis and its treatment. He stated that the physician should take a more hopeful view of these cases than is generally held. A strictly routine treatment should be avoided. For the ulcers which develop there is nothing better than lactic acid. Dr. J. R. Young spoke of the diagnosis and treatment of tubercular arthritis. Dr. Chas. P. Noble spoke of abdominal tuberculosis. Dr. A. O. J. Kelly spoke of the diagnosis of pulmonary tuberculosis. He mentioned four forms in which tuberculosis first manifests itself, the pleuritic, the hemoptytic, the bronchitic, and the insidious. The early diagnosis of the latter is of great importance. Symptoms suggesting this condition are gastric disturbances, progressive weakness, and a peculiar pallor. Changes of temperature are more common in early involvement than is generally supposed. In suspected cases the temperature should be taken every two hours for one or two weeks. The acceleration of the heart's action or its instability, especially under nervous excitement, is another point to notice carefully. Tubercle bacilli are not found in the sputum in the very early stages, but they are present almost as soon as demonstrable signs occur. As to tuberculin, Dr. Kelly finds it especially valuable as an aid to diagnosis in patients who have recently recovered from an attack of pleurisy. He has used it in many cases in hospital practice and the reaction has aided in making an early diagnosis of tuberculosis.

Vaccine Examinations by State Board of Health.—Microscopical and bacteriological examination of the vaccine lymphs on sale in Philadelphia have been made by the State Board of Health. No virulent bacteria were found. The number of bacteria in each varied greatly in the different makes of virus, ranging from 36 to 801 in dry points, from 24 to 63 in glycerinated points and from 2 to 11 in tube virus. Attention is called to the notable decrease in the glycerinated tubes as compared to the glycerinated and dry points. In general the quality of lymph shows a marked improvement in the number of bacteria over the same lymphs as tested in 1896 by the same bacteriologist.

Philadelphia Pediatric Society.—The following officers have been elected for the ensuing year: President, Dr. S. McC. Hamill; Vice-Presidents, Drs. D. J. M. Miller, J. H. Jopson, A. A. Eshner; Treasurer, Dr. H. B. Carpenter; Secretary, Dr. C. H. Weber; Recorder, Dr. D. L. Edsall.

CHICAGO.

Warden Healy Stops Operation.—An operation being performed upon a woman in the general clinic at the Cook County Hospital, January 23d, was stopped by Warden Healy, and the patient removed to a private operating-room, away from the view of medical students. The Warden recently gave an order that women should not be publicly exposed while undergoing perineal and uterine operations, and he intends to enforce it.

Chicago Laryngological and Climatological Society.—At a meeting of this Society, held January 21st, the following officers were elected: President, Dr. M. R. Brown; Secretary-Treasurer, Dr. John Rhodes; Members of the Council, Drs. William E. Casselberry, Edward T. Dickerman, and Dr. Otto L. Freer.

To Transfer Insane.—The superintendents of the State Hospitals for the Insane held a meeting at Springfield January 23d to confer with the State Board of Charities with reference to the transfer of inmates of their institutions to the Asylum for the Incurable Insane at Peoria, which will be opened February 20th. The employees' quarters, and the light, heat and storage plants of the Peoria asylum are sufficient to allow the accommodation of 3,000 patients, but the cottages in course of construction will not hold more than 700, and only 300 can be cared for at the opening. Under the law the incurable insane now in other State Hospitals must first be transferred to the new institution. The 300 to be transferred will be taken from the hospitals at Kankakee, Elgin and Jacksonville—100 from each—and special arrangements will be made with the railroad companies for the transfer. In selecting patients for transfer from their institutions the superintendents will apportion them as nearly as possible according to the ratio of quarters assigned the counties in their respective districts. Upon this basis 59 Cook County patients from Elgin and 65 from Kankakee will be sent to Peoria, thus giving the county immediate room in Elgin and Kankakee for 124 inmates who are at Dunning. As fast as the capacity is in-

creased in Peoria transfers will be made from the hospitals at Watertown and Anna.

Scarlet Fever.—It is impossible for the Department of Health to maintain isolation and to enforce preventive measures in every household, probably a thousand, in which there is scarlet fever at the present time. This disease had increased 35 per cent. during the first eighteen days of January over the last eighteen days of December, while diphtheria has increased less than 10 per cent. in the same period. The figures of mortality from the two diseases are even more striking—34 per cent. decrease in the deaths from diphtheria and 25 per cent. increase in the number of scarlet-fever deaths. Unfortunately there is as yet no antitoxin for the latter disease, and only great care in preventing contact with cases until all signs of scaling have disappeared and then thorough disinfection of person, clothing and sickroom can be relied on to restrict its spread.

Very Little Smallpox.—The Health Department is thus far entirely satisfied with its smallpox record. There have been but 18 cases this month and only 30 all told since August 12, 1901. The fact that no case has occurred among hotel and restaurant people, employees of stores and business places and others brought into personal contact with visitors speaks volumes for the intelligent appreciation of the protection afforded by modern methods of vaccination in Chicago.

Chicago Neurological Society.—At a recent meeting of the Chicago Neurological Society, Dr. H. H. Donaldson gave the description of a new chart drawn by Mr. Davis to represent the areas of the gray and white matter in the human spinal cord at the level of each spinal nerve. The base line represents the average length of the adult cord and is divided into thirty-one parts, each having the length of the corresponding segment. The data for the areas of the cross-sections were taken from Stilling's tables. The new features in this chart are the division of the base line into lengths equal to those of the corresponding segments, and the use, for the areas of the cross-sections, of data derived from the measurement of the adult cord. The diagram at present found in the text-books is based on Stilling's measurements of the cord of a five-year-old child; while the base line is divided into equal intervals for the segments, thus failing to give the measurements for the adult cord, and disturbing the relations of the curve which is presented. Dr. Ronaldson next presented some results obtained by Mr. Hatai from his studies on the spinal ganglion of the white rat during the growing period. Four rats were used, their body weights being 10, 24, 63 and 167 grams respectively. In each rat the number of cells in the ganglion and the number of fibers in the dorsal nerve-roots of the sixth cranial, fourth thoracic, and second lumbar was determined. On comparing these numbers thus obtained it was possible to draw the following conclusions: (1) In the spinal ganglia the number of cell-bodies is constant between birth and maturity. There is, of course, some individual variation in this number. (2) The fibers of the dorsal nerve-roots are more than twice as numerous in the 167-gram rat as in the 10-gram rat, and the intermediate weights show intermediate numbers in the roots. (3) Since this is the case, it follows that the ratio between the number of cells in the ganglia, as compared with the number of fibers in the dorsal nerve-roots, steadily decreases. In the youngest stage there may be as many as eleven cells in the ganglion for each fiber in the dorsal nerve-root, while in the case of the most developed nerve there are still 2.7 cells for each fiber. It appears that the new fibers are formed by the outgrowths of cells present in the ganglion from the earliest stage. Studies on the general activity of the rat show that they are most active when weighing from 25 to 35 grams, and, therefore, at a time when the number of fibers in the dorsal nerve-roots is still very incomplete.

Health of Chicago.—Doctors are unusually busy and the death-rate still declines. It is not meant, however, to flatter the profession unduly by implying that the latter is the result solely of the former. There is a vast amount of sickness in the city; but, fortunately, the prevalent maladies—except scarlet fever—are of a mild type. The 480 deaths from all causes recorded last week give an annual rate of only 13.73 per thousand of population, a reduction of about seven per cent. from the rate of the previous week and of 3.8 per cent. from that of the corresponding week last year. There has been a notable increase in the demands upon the main and sublaboratories for bacterial examinations since the appeal was made for a more general resort to these means of determining the character of obscure symptoms, especially those of influenza. Fully 60 per cent. of all examinations reveal the presence of the bacillus of this disease, either pure or associated with other germs, chiefly those of pneumonia. But the number of examinations called for is still wholly disproportionate to the prevalence of the disease. The Department renews its warning as to scarlet fever and the duty of parents to aid in preventing its spread by proper isolation of their own children when afflicted and to guard the well ones against association or contact with the sick. A scarlet-fever case is dangerous until all "scaling" has entirely disappeared—usually about six weeks after it begins. Physicans may materially assist by advising parents on this point and by discontinuing premature requests for disinfection. Disinfection does not disinfect while the child is still scaling. Only eight new cases of smallpox were discovered during the week—two imported from Wisconsin and both sent to the hospital in advanced eruptive stage; three were contracted from previous city cases and the origin of the remaining two is as yet unknown. Fortunately, the occupants of the hospital are properly protected by recent vaccination and no apprehension is felt from the cases that stray in or are sent there. Of the eight cases five had never been vaccinated at all and the remaining three, aged twenty-nine, thirty and fifty years, respectively, had only imperfect traces of vaccination in childhood, never repeated. The discovery on the 19th ult. of three cases of the disease in Highland Park, twenty-three miles north of the city, and one at Glencoe, four miles south of the Park, led Chief Medical Inspector Spalding to make a visit of investigation. He traced the cases unmistakably to a visitor from Ripon, Wis., just recovering from so-called "chicken-pox." None had been vaccinated. By Dr. Spalding's advice, general vaccination and revaccination are being enforced in both localites. The infection centers are steadily getting nearer Chicago and no unprotected person in the city can afford to take any chances. Again: Get vaccinated. The cleansing effect upon the atmosphere of the snowfall of January 21st is shown by the following: On the 18th ult. shallow glass dishes containing the usual preparation favorable to the growth of atmospheric germs were exposed to the air for three minutes in ten different localities within the half-mile bounded by South Water, State and Adams Streets and Fifth Avenue. After seventy-two hours' incubation these showed an average of 630 colonies of growing germs—the greatest number, 1,050, being found at the northeast corner of Dearborn and Washington Streets, a few feet above the street level; the least, 330 in the south court between the City Hall

and the County Building; and the next fewest, 335 on the roof of the City Hall, about 130 feet above street level. On the 21st ult. snow fell to the equivalent of 0.28 of an inch of rain and the experiment was repeated on the 22d. The average colonies from these latter exposures numbered 66, ranging from 19, at the southeast corner of La Salle and South Water Streets, to 180 at the southwest corner of Washington and Fifth Avenues. The amosphere was nearly 90 per cent. purer on Wednesday after the snowfall than it was before. Chicago needs snow; the records of the Weather Bureau fail to show a period of dryness equal to that which has now been continuous since the middle of last October. The public water supply has averaged fairly good during the week, but it is still to be regarded with suspicion as a drink for the young and non-immune to typhoid. Unlike the presumption of the law that a man is innocent until proved guilty, hydrant water must be considered dangerous until proved to be safe. The Department's warnings too often reach the public after the event. Boil all water intended to be drunk by the young, at least.

CANADA.

The Toronto Western Hospital.—This hospital has arranged tents on its lawns so as to accommodate fifteen consumptives.

A Health Officer Contracts Smallpox.—Dr. Hamilton, the local Medical Health Officer of Cornwall, Ont., has contracted smallpox while in the discharge of his duties.

McGill University and Newfoundland.—Speaking at the banquet of the New England Graduates' Society of McGill University on the evening of January 23d, at Boston, Dr. Petersen, the Principal of McGill, referred to the excellent work being done by an affiliated college at Vancouver, B. C., and to the prospects of a similar institution being established in Newfoundland.

Appointments.—Dr. S. B. Jones has been appointed assistant in clinical laboratory work at the Royal Victoria Hospital, Montreal. Dr. Lachapelle has retired from the mayoralty contest in Montreal. Dr. John Hayes has been elected mayor of Richmond, Quebec.

New Medical Buildings.—Much progress has been made in the arrangements for the new medical buildings which are to be erected for the growing requirements of the Medical Faculty of Toronto University. It has been agreed that the Arts Faculty will bear two-fifths of the cost and the Medical Faculty the balance. The new building will be situated in the Queen's Park near the other buildings of the University. This will be the final act in centralization as the old building of the medical faculty was distant a mile from the University.

Cottage Hospitals for the Northwest.—The idea originated by Her Excellency, the Countess of Minto, of establishing cottage hospitals in the sparsely-settled districts of the Canadian Northwest as memorials to our late beloved Queen, is taking shape, and already two are in course of erection and a third is under consideration. The women of the Dominion are coöperating with Her Excellency and collecting books for 25, 50 cents and $1.00 are being issued.

To Reform the Ontario Medical Council.—Dr. Jessop, one of the members of the Legislature, has introduced a bill seeking to reform the Ontario Medical Council. The Council as at present organized consists of thirty members, five of whom represent the Homeopathic practitioners of the province, eight the non-elected appointees of four medical colleges, connected with Toronto University, Trinity University, Queen's University and the Western University at London. The other seventeen are elected by the general practitioners of the Province. Dr. Jessop claims that there are only forty Homeopathic practitioners in the Province and they have five representatives, whereas the general or regular profession numbers 250 for each representative. His bill proposes to abolish the Homeopathic and the appointed representatives on the Council and to have the entire thirty members elected by the general profession throughout the province.

Quarantine on the Pacific Coast.—A new quarantine order has been issued from the office of the Director-General of Public Health at Ottawa and it refers to a change in the quarantine arrangements affecting the Empress line of steamers plying between Vancouver and the Far East. Under the new order all steamers will be obliged to touch at the Williams Head station only when contagious diseases have developed on the voyage. Before, every steamer was obliged to anchor for four or five hours whether contagious diseases were on board or not.

A New Women's Hospital for Toronto.—For two years the corporation of the Women's Medical College has been endeavoring to raise the funds for a hospital in connection with the college, but so far the work has been educational and organization for the purposes of raising those funds and a good foundation has been laid for the collection thereof. Dr. Minerva Greenaway presented the report of the dispensary in connection with the college. This dispensary is nearing the close of the fourth year of its establishment and during that time there have been registered 9,000 patients, by far the larger number of these being women. Thus, the need of such a hospital in connection with the work of the Women's Medical seems to be emphasized.

Royal Victoria Hospital, Montreal.—The annual meeting of the Governors of this institution was held during the past week when it was stated that plans are now being prepared for an extension to the hospital with provision for an operating-room for the gynecological department. During the past year 2,579 patients were admitted to the hospital and of this number 1,254 were free patients. In January, 1901, there were 194 patients in the institution. The death-rate for the year has been 4.42 per cent. In the out-door departments the total number of patients treated was 3,601. The income for the year amounted to $130,738.40; the expenditure, $112,280.20.

New Appointments.—The following have recently been appointed on the staff of the Royal Victoria Hospital, Montreal: Dr. A. G. Nichols, Assistant Pathologist; Dr. G. P. Girdwood, Director of the Medical Electrical Department of the hospital; Drs. H. B. Cushing and F. M. Fry, Clinical Assistants in Medicine; Drs. A. Shirres and A. A. Robertson, Clinical Assistants in Neurology; Dr. E. A. Archibald, Clinical Assistant in Surgery; Dr. F. W. Harvey, Clinical Assistant in Ophthalmology; Dr. W. H. Jamieson, Clinical Assistant in Laryngology; Dr. H. B. Yates, Assistant in Bacteriology; Dr. A. A. Bruere, Director of the Clinical Laboratory; Dr. H. B. Cushing, Medical Registrar.

GENERAL.

The Medical Director of the Louisiana Purchase Exposition.—The post of Medical Director of the St. Louis World's Fair has been filled by the appointment of Dr. Leonidas H. Laidley. Dr. Laidley is a man of thirty-five, a successful practitioner and a medical teacher in St. Louis. He is professor of gynecology and pelvic surgery in the Marion Sims-Beaumont College of Medicine. In addition, he is surgeon to the

Protestant Hospital, consulting surgeon to the Female Hospital, and a leading member of the St. Louis Medical Society and other medical organizations. He was a delegate to the British Congress in 1883, and while abroad visited the hospitals of the principal cities. When the Louisiana Purchase Exposition Company was organized he was one of the incorporators.

Temporary Injunction Against Smallpox Hospital.—Vice-Chancellor Emery has granted a temporary injunction restraining the Mayor and Council of East Orange from receiving patients at the smallpox hospital that is being built on Clinton Street in that city.

Smallpox in Princeton.—One student in Princeton University has smallpox. The authorities are taking every precaution to prevent the spread of the disease among the students, who are being vaccinated as rapidly as the work can be done. There are four other cases of smallpox among the residents of the town.

More Money for Lakeside Hospital in Cleveland.—Samuel Mather, who has given thousands of dollars to Lakeside Hospital, has nearly completed the arrangements for a gift of about $40,000, which is offered to the Hospital Board under certain conditions, the compliance with which will be a small matter.

The St. Louis Medical Society of Missouri.—On January 25th the meeting of this Society was opened with a paper on "Ophthalmoscopic Examinations in Nephritis" by Dr. Meyer Wiener. This was followed by a discussion by Drs. Carl Barck, Dr. W. A. Shoemaker, and Dr. Hugo Summa. A paper on "Ear Complications and Sequelæ of Influenza" was read by Dr. M. A. Goldstein and discussed by Drs. J. B. Shapleigh, L. Caplan, and Dr. F. M. Rumbold.

Medical Society of the District of Columbia.—At a recent meeting of the Medical Society of the District of Columbia the following officers were elected for the present year: President, Dr. Samuel S. Adams; Vice-Presidents, Drs. J. W. Chappell and A. R. Shands; Treasurer, Dr. C. W. Franzoni; Corresponding Secretary, Dr. Thomas C. Smith; Recording Secretary, Dr. Francis P. Morgan; Librarian, Dr. Edwin L. Morgan.

Prophylaxis of Syphilis in France.—A committee has been formed for the study of questions relating to the prophylaxis of syphilis and venereal diseases in France, and also to investigate the frequence of these maladies, institutions for their treatment, and the best means, legislative and administrative, to prevent their propagation.

Italian Surgical Congress.—The next Congress of the Italian Surgical Society will be held in Rome during the month of March.

Statistics of Rabies.—Since 1886, 26,165 people who had been bitten by mad dogs have been treated at the Pasteur Institute in Paris. Of this number, but 107 died.

The Transvaal War and Insanity.—It has been noticed in England that soldiers returned from South Africa suffering from extreme nervous excitement and insomnia. The increase in the number of insane in 1901 is attributed largely to the Transvaal war.

Physicians and Apothecaries.—In Germany there is one physician to 2,058 people, but only one apothecary to 10,363.

How They Regulate Tunnel Air in Paris.—The Paris City Council has had analyses made of the air in the tunnel of the new rapid-transit railroad, and has found an excess of carbonic acid gas. Consequently, it has summoned the management of the railroad to appear before it and show how it is going to purify the air.

Smallpox Epidemic in London.—Sir James Crichton Browne, the eminent English physician and specialist in mental diseases, dealt with the prevailing smallpox epidemic in London, the other day, in an address, which he delivered before the British Sanitary-Inspectors' Association. He said that, although the visitation was cause for anxiety, yet there were now means for combating it, which did not exist formerly, and he dwelt particularly upon the protective power of vaccination, when properly performed. He had become a convert, he admitted, to the law which did not enforce the operation in the face of conscientious objections, but he expressed the conviction that persons who refused to be vaccinated ought to be subjected to additional obligations. "The avoidance of vaccination," he said, "should be made appreciably more troublesome and expensive than compliance with it, since, for one child unvaccinated, owing to conscientious objection, there were at least a hundred or so disabled by the ignorance, indolence, or carelessness of their parents." He approved of the suggestion of a system of international notification of smallpox, and admitted that sanitation was a factor in preventing its spread. But when all was said and done, he declared, there was no substitute for vaccination in relation to smallpox, though it might have its auxiliaries.

Prof. Virchow Growing Weaker.—The condition of Prof. Rudolf Virchow, the eminent pathologist, who injured his thigh by a fall when alighting from a street car in the early part of this month, causes apprehension among his physicians. Prof. Virchow is growing weaker as a result of his accident.

Obituary.—Dr. Charles George Sproull died on January 25th, at Dr. William T. Bull's private sanitarium at 33 East Thirty-third Street, New York. He was stricken with paralysis of the intestines last Wednesday and was removed from his apartments in the Beverwyck in West Twenty-seventh Street. He failed rapidly and early on Saturday morning it was decided that an operation was necessary. Dr. Sproull was thirty-four years old. He was a graduate of Princeton University and of the University of New York. He was for two years house physician of Bellevue Hospital.

Dr. S. Seabury Jones died from pneumonia at his home, No. 712 Madison Avenue, on January 23rd, after an illness of three days. Dr. Jones, who was fifty-five years old, was born in Oyster Bay, Long Island, and had been practising medicine in New York since 1869. He was a graduate of the New York University. He was a member of the Academy of Medicine, the Manhattan Medical and Surgical Society, and the Lenox Society. He was consulting physician at both the Workhouse and Almshouse.

Dr. Francis Clemens, Jr., of Paoli, Pa., was drowned on January 22d in Ridley Creek, Westchester, Pa. In company with his brother he attempted to cross the stream, which had been swollen by heavy rains. His carriage was overturned and Dr. Clemens was swept away. His body has not yet been recovered. His brother was rescued by a farmer who heard his cries for assistance.

Dr. Andrew J. Hines died January 21st, at Doylestown, Pa., at the age of seventy-six. He graduated from Jefferson Medical College in 1853, and was the oldest practising physician in Doylestown.

Dr. Lachlan Tyler, fifty years old, of No. 303 West One Hundred and Twentieth Street, New York, died on Sunday, January 26th, at the Post-Graduate Hospital, of appendicitis. Dr. Tyler was the son of President John Tyler, tenth President of the United States, and for many years was connected with the Depart-

ment of Health of New York. A brother is now President of William and Mary College, at which both Dr. Tyler and his father were educated.

Dr. Dominick George Bodkin died on Sunday night, January 26th, at his home, No. 290 Clinton Avenue, Brooklyn, after a long illness. He was well known as a physician in Brooklyn, where he had practised for thirty-five years. He was born in County Galway, Ireland, in 1833, coming to this country with his parents when he was nine years old. He served in the Civil War as an assistant surgeon in the corps commanded by Gen. Canby. He was a delegate to the International Medical Congress held in Russia some years ago. He was also a member of the New York State Medical Association, the Kings County Medical Society, the Mutual Aid Physicians' Association, the Columbian Club, the Catholic Benevolent Legion, and other organizations. He was also for many years on the medical staff of St. Mary's Hospital.

CORRESPONDENCE.

OUR LONDON LETTER.

(From Our Special Correspondent.)

LONDON, January 18, 1902.

A GREAT SCHEME OF CANCER RESEARCH—THE FORTHCOMING ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION—THE MIDWIVES QUESTION.

SINCE the dispatch of my last letter the movement against cancer to which reference was there made has taken shape. The initiation of the project is attributed to Mr. Henry Morris, Senior Surgeon to Middlesex Hospital, who is said to have perfected a scheme for establishing a fund to provide for the prosecution of research in the matter of cancer. According to an evidently inspired communication which appeared on January 16th in an evening newspaper, the objects of the fund are to provide, equip, maintain, and endow laboratories to be devoted exclusively to cancer research; to endow a directorship of research; to provide paid assistants to the director, research scholarships, and grants in aid of cancer research within the United Kingdom, etc.; to assist in the development of the cancer department of Middlesex Hospital and of any other hospital where a special cancer research department may be provided; and generally to provide means for systematic investigation into the causes, prevention, and treatment of cancer. The promoters of the scheme propose (should the object of the fund be attained by the discovery of the cause and nature of cancer, and of an effectve method of treatment) that the trustees, with the consent of the Royal Colleges, shall be empowered to utilize the income of the fund either for equipping such hospitals as they may select with any appliances which may be necessary for such treatment, or for forwarding in similar manner research into other diseases. It is further proposed that the general committee shall include the president and two censors (for the time being) of the Royal College of Physicians of London, the president and two vice-presidents of the Royal College of Surgeons of England, the members of the laboratories committee of the Royal Colleges of Physicians and Surgeons, and one member to be nominated by the Local Government Board. An influential board will be appointed to advise the general committee as to the best means to be adopted in promoting the inquiry and in allocating money. It is estimated that the annual expenditure from the fund will be some £2,250, which will include grants for research, salaries, etc. Among those who have expressed themselves as favorable to the scheme are Lord Lister, Sir William Broadbent, the late Sir William MacCormac, Bart, Sir R. Douglas Powell, Sir Thomas Smith, and Sir John Williams.

From this it will be seen that I was strictly correct in stating that the scheme had taken shape. But it still wants substance, for though Mr. Henry Morris may have "perfected a scheme" for establishing a fund, no fund yet exists, nor does the pious founder show any disposition to come forward. As I told you last week, the Colleges of Physicians and Surgeons, though they have the matter under consideration, have not yet decided to take any action. It will be noticed that in the "officious" communication of which the gist is given above the Royal Colleges are mentioned only in a casual way, while prominence is given to the Middlesex Hospital as the place in which the research may most advantageously be carried out. This indicates that the scheme is, in its "first intention," designed for the greater glory of the Middlesex Hospital of the staff of which the initiator is a distinguished ornament. Other hospitals are not unnaturally urging their claims to participate in any endowment of cancer research that may be secured, and there is thus a serious risk that a scheme big with promise of benefit to mankind may be wrecked by the jealousy of rival institutions. The right solution of the difficulty would be to place the funds at the disposal of the Royal Colleges for the creation of a central laboratory with a special staff working under their control. As a matter of fact the Middlesex Hospital has perhaps less claim than many others to endowment for the particular purpose intended; for although it has wards devoted to sufferers from cancer and a special department for the pathological investigation of cancer, little or no new light on the subject has come therefrom.

The British Medical Association is to hold its next annual meeting in Manchester under the presidency of Mr. Walter Whitehead, a surgeon whose name is doubtless familiar to many on your side of the Atlantic in connection with his operative procedures for hemorrhoids, cancer of the tongue, etc. The prospects of a successful meeting have been seriously jeopardized by the foolish arrogance with which the representatives of Manchester on the Council of the Association endeavored to make that body an instrument for the pursuance of local quarrels and the satisfaction of personal spite. They claimed the right to determine what addresses should be delivered and to select the orators. For the sake of peace probably the matter was left in their hands, and accordingly they decided that the customary Address in Obstetrics should have no place in the program. The pretext alleged for this innovation was that more time would thus be available for the transaction of business. The real motive, however, was speedily apparent. Professor Japp Sinclair, who occupies with great distinction the chair of obstetrics and gynecology in the Victoria University, Manchester, had made himself personally obnoxious to some uncompromising opponents of the legal recognition of midwives, and they saw in the annual meeting an opportunity of revenge. Among the representatives of Manchester on the Council are some of the fiery spirits aforesaid, but though active in "political" agitation they cannot be regarded as in any sense representative of the profession in Manchester. It is, indeed, one of the weak points in the Association that neither in London nor elsewhere do the leading men in the profession take an active part in the conduct of its affairs. Hence a set of nonentities of no importance even locally may cause mischief by ill-judged decisions on questions with which they cannot be trusted to deal. In the present instance the gravest dissatisfaction was excited in high professional quarters in Manchester by the attempt to boycott Professor

Sinclair. His colleagues at once took up his quarrel as their own and determined to have nothing to do with the annual meeting. This would have made the gathering simply a *fiasco*. The President-Elect, Mr. Walter Whitehead, found himself in a difficult position, for he had to make up his mind to throw in his lot either with his colleagues of the University or with the Association. He appealed to the Council to extricate him by throwing over the Manchester representatives who had caused the mischief, and this was finally done.

The midwives question which is at the bottom of the whole thing is likely to come before Parliament in the course of the next few months. The profession has been led into a false position by a small band of intransigents who profess to speak in its name, and the public which is beginning to recognize the necessity of legislation is certain sooner or later to insist on the matter being dealt with regardless of interested opposition.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Ninety-Sixth Annual Meeting, Held at Albany, January 28, 29 and 30, 1902.

FIRST DAY—JANUARY 28TH.

Inaugural Address.—The President, Dr. Henry L. Elsner of Syracuse reviewed the recent progress of medicine and surgery in his inaugural address. He called attention to the eminent desirability of having harmonious action in all public matters among the medical profession of New York State. The existence of two State medical organizations interferes with this and he suggested that steps should be taken looking toward reunion. As the result of this a resolution was offered empowering the President to appoint a committee to consider and report to the Society as to the advisability of having the President appoint a committee of conference to meet a similar committee to be appointed by the New York State Medical Association to discuss the ways and means of union between the two medical organizations of the State.

Treatment of Goiter.—Dr. Thomas Scully of Rome opened the scientific program with a discussion of the medical and surgical aspects of the treatment of goiter. He considers that parenchymatous enlargements of the thyroid gland may in early stages at times be relieved by internal administration of the iodides. Sometimes injections of iodine or of carbolic acid directly into the substance of the gland give good results. For cystic conditions surgical interference will always be needed. It is well not to delay radical surgical intervention so long that extensive adhesions to the important structures of the neck have taken place. Dr. Scully has found that local anesthesia by means of cocaine is very effective in these cases. The operation as a rule requires less time and there is less subsequent pain and no vomiting to interfere with postoperative conditions and make the patient very uncomfortable.

The Professional Midwife.—Dr. M. J. Lewi of New York said that last year, while some 80,000 births were reported by physicians in New York City, over 30,000 were reported by midwives. This represents about the proportion of obstetrical cases that go to these two classes of attendants in recent years. The problem is a very large one. As the result of the work of ignorant midwives there are blind children crowding the blind asylums and maimed women crowding the dispensaries. As the result of the work of criminal midwives there are thousands of abortions being procured and the system of child-farming, so fatal to the lives of infants, is perpetuated. Something should be done by the representatives of the profession of New York State to prevent these evils. The general public rightly looks to the medical societies in this matter. There is need for the legal regulation of midwives. There should be a law requiring all midwives to be registered and permitting only those to register who have passed a suitable examination and who have attended at least a dozen cases of labor under proper direction. The Legislation Committee of the State Medical Society should be instructed to draw up a bill for this purpose and the influence of this Society should be exerted to secure its passage.

Legal Registration.—Dr. Abraham Jacobi of New York said that the legal regulation of the practice of midwifery by women who are not physicians is a crying need of the times. There will always in large cities and also in country places be need of the services of midwives, and women will employ them. In order properly to control them legislation looking to examination and registration is required. Midwives are not the only ones who perform abortions, and, if members of the profession do so, how much more these irregulars? It is useless to hope for ideal results, and the practical conditions demand that the midwife shall be acknowledged and her proper training encouraged. A resolution was then adopted instructing the Legislative Committee to draw up and present a bill to the Legislature on this subject, embodying the ideas of this discussion.

Human Asymmetry.—Dr. W. S. Ely of Rochester said that there is no absolute symmetry in Nature. French gardeners in attempting to make trees formally symmetrical made them grotesque. In infancy human beings are most symmetrical. Growth, exercise and work soon increase the slight asymmetry always present. Even the skull is asymmetrical and there may be enough difference in the two sides to make fractures difficult of recognition. The general asymmetry of the body is increased by the training for righthandedness. This is unfortunate, as it gives a proper development to only one-half of the body. Dr. Ely suggests that family doctors should discourage the exclusive training of one side of the body only. Some of the spinal curvature so noticeably on the increase in recent years is due to this mistaken notion. The lack of symmetrical training in the past has deprived the majority of mankind of certain faculties and dexterity that would normally have been their due.

Sarcoma of Tonsil.—Dr. Arthur G. Root of Albany described an operation for a serious case of this condition. The patient was a young man, twenty-three years of age, who came to him with a firm enlargement of the tonsil. After an attack of pneumonia an abscess had formed in this tonsil which had to be incised several times. The scar of these incisions had left distinct indurations. Though only the tonsil was apparently involved within the mouth, the external lymphatics of the neck were noticeably enlarged. An intra-oral operation was out of the question, so an incision was made all along the sternocleido muscle almost to the clavicle. All enlarged glands were removed. A ligature was passed around the common carotid about an inch below its division, to be tied if subsequent bleeding should be severe. It was found necessary to tie this ligature before all of the growth could be removed. The patient sank so much after this that the conclusion of the operation was delayed. The wound was packed and the patient responded well to stimulation. The operation was completed very thor-

oughly, all diseased tissue being removed so far as it could be recognized. After five months, however, recurrence took place and the patient died.

Double Carotid Ligature.—Dr. Dawbarn of New York said that he has paid special attention for some eight years to inoperable malignant growths in the pharynx and larynx. The most successful treatment seems to be the extirpation of both external carotids with all their branches. About forty of these operations have been done by Dr. Dawbarn himself and some dozen other surgeons. They give the best results and are not as dangerous as might be expected. It seems that the profession should try this method of treatment in these cases, which are now so commonly looked upon as inevitably fatal.

Dr. Jacobson of Syracuse said that if taken early it is sometimes possible to cure these patients by simple removal with the cautery. He reported the case of a patient thus treated twelve years ago in which there has been no recurrence.

Pelvic Suppuration.—Dr. Chas. P. Noble of Philadelphia presented the results of his various methods of treatment of pelvic suppuration during the last fourteen years. In all there were 200 patients having suppurative conditions. Of these 146 were operated on by abdominal incision. Of the remaining 64 most were operated on by vaginal incision with drainage. This last method has given much better results than any former methods of treatment. The mortality in the treatment of pelvic suppuration was over 16 per cent. before 1895; since that year the mortality has been only slightly more than 6 per cent. and only 4 per cent. if to the operative cases are added those of simple drainage for pelvic suppuration. Other disadvantages besides the cardinal one of greater mortality have also been obviated. Hernia in those operated upon by the abdominal method occurred in over 10 per cent. of all cases. Now it occurs in less than 1 per cent. of all cases. The modern technic of using absorbable catgut instead of silk does away with the danger of subsequent fistulæ, so annoying a sequela in the old days. The vaginal method also removes almost completely the danger of subsequent adhesions from which patients suffered so much and for the relief of which even serious secondary operations had to be performed.

Abandon Radical Abdominal Operation.—Dr. Noble is of the opinion that the radical operation upon the uterus and adnexa through an abdominal incision should be abandoned. Its mortality is apt to be high. If drainage is employed hernia is practically inevitable and adhesions are almost sure to occur, later to be a source of danger and discomfort. On the other hand, by the vaginal route these disadvantages are minimized. In puerperal cases lives are saved and even the ovaries may be preserved for subsequent function, though they would surely be sacrificed by abdominal operation. If by chance the abdomen should be opened and a purulent condition unexpectedly found the vaginal route should be used, the assistant closing up the abdominal incision.

Drainage in Abdominal Operations.—Drainage should not be used in abdominal operations unless it is feared that a hollow viscus has been injured. Even if a pus sac should be ruptured within the abdominal cavity drainage is inadvisable. The peritoneum can take care of infectious material better without drainage than with it. The continuous irritation of a leaking intestine, ureter or bladder, however, soon overcomes the normal resistive vitality. It might seem that simple drainage for pelvic suppuration is a reversion to the old days when simple evacuation of the pus was the only purpose attempted. As a matter of fact the present drainage represents a distinct advance. Instead of the halting-in-the-dark methods of the early days of gynecology, surgeons now know exactly the indications and realize how far they may go with the hope of ultimate success. In the old days patients were relieved for the time being, but very seldom entirely cured. With the modern drainage it is almost the exception not to have permanent relief. The majority of patients do not need any subsequent operative treatment and have very little discomfort. The drainage operation is truly conservative. It saves not only life, but organs. Ovaries are not sacrificed and often retain their function. Dr. Noble has seen six pregnancies occur in cases in which, according to old methods radical removal of organ would surely have been the indication.

True Conservative Gynecology.—Dr. McDonald of Albany said that there was little to discuss in Dr. Noble's paper, because there was little to criticize or disagree with. Undoubtedly the vaginal route has proved an eminently conservative method. False conservatism may, however, assert itself to the patient's servatism may, however, asesrt itself to the patient's and are to be removed hysterectomy should be done also. Dr. McDonald has seen cases in which neglect of this precaution has necessitated secondary operation. This is not the sacrifice of a healthy organ, for usually the seeds of infection are also in the uterus, though they may not be manifest.

The Sideroscope.—Dr. Thos. R. Pooley of New York read a paper describing the development of this instrument from his original invention. He found by experiments with a suspended magnetized cambric needle that when an iron or steel body was in an excised eye the fact was disclosed by perturbations of the needle. Further experimentation showed that if the iron or steel particle were magnetized or were situated close to the surface of the eye, these perturbations of the needle were sufficiently distinct to be of assured diagnostic significance. He then had a needle constructed with an eye in the middle by which it might be delicately balanced on a thread and used it on certain cases with good results. The principle is that if a foreign body is attracted by a magnet and made to move, if sufficiently light, so also the magnet may be made to move if the body it influences be large enough.

Foreign Adoption of the Sideroscope.—Prof. Pagenstecher of Wiesbaden, the distinguished German ophthalmologist, used the sideroscope with good results which he has reported in the "Annals of Ophthalmology." Pagenstecher succeeded in magnetizing iron and steel particles within the eye by bringing close to it a powerful magnet. This manipulation adds to the serviceableness of the sideroscope. Dr. Asmus, formerly of Breslau, but now of Düsseldorf, has added a scale to the sideroscope and a telescope to facilitate the reading of even minute variations of the needle. Prof. Hirschberg of Berlin has added a small reflecting mirror to the instrument and by so doing has avoided the need for a telescope. The movement of the beam of light so magnifies the slightest variation of the needle that it becomes easily visible.

Gonorrhea of the Prostate.—Dr. John Van der Poel of New York said that the diagnosis of gonorrhea of the prostate is not difficult if care be taken in the method of examination. The ordinary two-glass test, with about equal quantities of urine passed in each glass, is not a certain way. Most of the urine should be passed in the first glass and only a few teaspoonfuls in the second. If this sample of urine be cloudy, there is no doubt that the prostatic urethra and the prostate itself are affected. Gonorrhea of the prostate

is much more common than is thought. The notion prevailed formerly that practically all posterior urethrites affected the prostate. This was much nearer the actual truth than the present set of ideas as to its comparative rarity. The diganosis of gonorrhea of any porton of the urethra from the subjective and objective symptoms is always a mistake. Only the microscope can give assurance in the matter.

Treatment of Prostatic Gonorrhea.—The best method of treatment is with the organic salts of silver. Protargol is a good type. It is extremely soluble yet contains 8 per cent. of the metallic silver. A fresh solution of the drug should be made about every forty-eight hours. First the patient should urinate. This is the natural irrigation and cleansing of the urethra. Then the meatus should be sopped out with cotton dipped in a 1 per cent. solution of protargol. In acute cases, before any manipulations are begun, a solution of cocaine, ½ to ¾ per cent., should be allowed to remain in the urethra for about five minutes. This allays the iritability of the mucous membrane over the cut-off muscle and admits of the injection being made without the induction of spasm. From 250 to 400 grams of a 1-per-cent. protargol solution should then be allowed to flow into the bladder. At times an uncomfortable sense of fulness will occur when about 150 grams have been injected, but, as a rule this is due to the patient's uneasiness bringing on the reflex, and it can be overcome by patiently continuing the injection. The presence of fever or of any tendency to pus-formation constitutes an absolute contraindication to this method. If inevitable, the formation of pus should be encouraged and then it should be evacuated.

Fractures of the Nose.—Dr. John O. Roe of Rochester said that fractures of the nose are not difficult to treat if they are seen before the swelling and inflammatory exudation have made the tissues less tractable. Dr. Roe always employs a nose plate made of aluminum or copper. This can be bent to fit the particular nose and is made of good size, so as to cover the organ completely. A piece of adhesive plaster the size of the nose is applied first to act as a splint and prevent any irritation by the metal. If there is deformity within the nose it is corrected by means of a small sound intended for the purpose. If the physician is without the sound and the nostril is roomy, the little finger can be used to overcome the deformity. To insure against recurrence in obstinate cases Dr. Roe uses a bent spring, the arms of which are covered with rubber tubing to prevent irritation. In severe case the nose should be packed for three or four days until sufficient union has taken place to prevent recurrence of the deformity. To prevent irritation of the nasal mucous membrane, it should be sprayed with cocaine before the nostril is plugged. Dr. Roe exhibited a simple gauze packer that enables the surgeon to place the cotton in any part of the nose.

Importance of Preventing Nasal Deformities.—Dr. Wendell C. Phillips of New York said that entirely too little account is taken as a rule of accidents to the nose in childhood. If the patient does not complain of much pain and if there is but slight external deformity, these cases are often left entirely untreated. The nose is an extremely important organ that serves more than a cosmetic purpose. It is also an extremely delicate organ and even slight external injuries may seriously impair its functions. At times when these patients come to the physician the broken parts have to be refractured in order to be set. It is very easy to treat them if they come before inflammatory changes have taken place. Ball-players especially are liable to suffer from nasal injuries, and it is imperative to keep in mind constantly the importance of early treatment. Otherwise serious pathological changes take place and important functions are subverted.

Deafness and Constitutional Treatment.—Dr. Sargent F. Snow of Syracuse said that for chronic deafness constitutional treatment is even more important than the local treatment of the catarrh that usually forms the basis of the deafness. This fact is often forgotten. While the employment of jets of vapor into the middle ear gives temporary relief, no system of treatment does any lasting good that does not take account of the patient's general condition. So long as the large area of mucous membrane in the intestine, for instance, is not in normal condition, it cannot be hoped that any medication will keep the upper parts of the mucous membrane in nose and pharynx in good condition. With a sluggish liver the secretions of the upper air-passages will be sympathetically disturbed. While the skin is sluggish there can be no hope of properly regulating the mucous membranes. The most important indication is to tone up the general system. For this exercise may be the most important requisite. In older patients it usually is a *sine qua non* of successful treatment. Often the exercises and the practice of deep breathing will be sufficient to create the necessary diversion of circulation that is so stimulant to mucous membranes. Cold baths should be taken for the restoration of activity to the peripheral circulation. If for any reason they are contraindicated, then at least brisk brushing with a coarse towel should be practised. Often the sluggish patients in whom chronic catarrh finds favorite victims are inclined to the habit of warm bathing. This should be discouraged because of its relaxing effect.

Nasal Cleansing.—Dr. Abraham Jacobi of New York said that not only should the other mucous membranes and the skin be kept clean, but all the mucous membranes of the throat and nose should be frequently cleansed. Children should be taught to do this as they are taught to brush their teeth or even to wash their hands. Once a day is not too often for this purpose. For nasal irrigation warm salt solution should be used. In the treatment of chronic catarrhal conditions the use of the absorbent remedies, the iodides, are especially indicated. The iodide of iron is the most important of these for children.

New Charities Bill.—Dr. Edward Fischer of New York then offered a resolution asking the Society to deprecate the passage of the new Lunacy Bill which threatens to undo the progress that has been made in the asylums in this country by taking powers from the heads of institutions to give them to the State Lunacy Commission. On motion this resolution was carried unanimously and the sense of the Society ordered to be conveyed to the committee in charge of the bill.

Suggestion in Nervous Therapy.—Dr. Edward B. Angell of Rochester said that while abroad he had seen tabes treated by Fraenkel's method, by extension and warm baths, by suggestion, and by hydrotherapy. Under all of these methods it improved. Evidently the patient's state of anticipation has much to do with the improvement. Physicians must learn to use more and more deliberately this great therapeutic force of suggestion. It is even more important for the neuroses than for the serious nervous diseases. For the hysterical this must consist in the substitution of the physician's will for that of the patient. Every hour of the day should be mapped out for them; "charted" is the expression of S. Weir Mitchell, who made some of his greatest successes in this way.

Endotheliomata of the Ovary.—Dr. Mary Dixon Jones of New York described certain peculiar tumors

of the ovary pronounced malignant by distinguished authorities in pathology, but without the clinical aspects of malignancy. If they were malignant they would cause dreadful mortality, for they are very common. These tumors are probably endotheliomata. At times they have the general character of hematomata. Not infrequently they resemble epitheliomata, not only in their general character, but even in their microscopic details.

New Bisection of Uterus.—Dr. C. H. Richardson of Albany described a new method of cutting the uterus in two for removal by the vaginal route. When hysterectomy is to be done it is usually because the uterus has been infected and it is undesirable for its contents to reach the operation wounds. All sections that open the cavity of the uterus submit the patient to this additional risk. Dr. Richardson suggests the incision be made not in the median line of the uterus, but to either side through the muscular tissue of the uterus. By a little care, in this way, the cavity of the uterus remains intact and all danger of infection from this source is rendered nil. Dr. Richardson has employed this method with good results. He does not extend the incision so as to pass through the cervix, for this exposes the vagina to infection.

Backwoods Typhoid.—Dr. E. G. Brush described an epidemic of typhoid that occurred in the Maine woods. The first case was that of a boy who contracted the disease either by bathing in a river sixty miles below where there had been some cases of typhoid fever in a lumber camp several months before, or by association with lumbermen who were carrying the bacteria of the typhoid with them, though it did not develop for some time later. All the subsequent cases can be traced to this one. The families lived far apart, but during sickness, in order to be of help, they visited houses in which the disease existed and carried it home with them. In one family in which six members of the family developed the disease, the source of infection seemed to be the water barrel. All were accustomed to drink out of the barrel with a common dipper and to throw back for subsequent use whatever water was left. In other cases the fecal distribution of the disease could be easily traced. In this one family, however, there was no opportunity for it and the distribution seems to have been from mouth to mouth.

Strangulated Ovarian Hernia.—Dr. Bristow of Brooklyn described an operation for this rare condition. The patient at eight years of age was kicked, though not severely, by a horse. A tumor developed in the inguinal region which was reducible. After several years it disappeared and was not noticed again until the patient was forty years of age. Then the hernia redeveloped while the patient was lifting a heavy weight. Shortly before coming for treatment the hernia apparently came down one day, but could not be reduced. The tumor was very tender and gave great discomfort. It did not give the characteristic symptoms of strangulated hernia, though there was some nausea. On operation the tumor was found to contain a tube and ovary. These were replaced and the patient made a good recovery.

Ovarian Hernia in Children.—Dr. Bristow said the ovarian hernia is much more common in children than in adults. The reason is said to be that the ovaries are placed much higher up in early life than at a later period.

Inguinal Canal of Children.—Dr. Abraham Jacobi said that the inguinal canal in children is much shorter than in the adult. Moreover it is almost straight. The internal and external ring are almost on the same plane. This fact, with the extreme delicacy of infantile tissues, accounts for the greater frequency of hernia in children. This explains also the tendency of other organs besides the intestines to find their way into infantile hernial sacs.

Large Dosage in Nervous Diseases.—Dr. Wm. C. Krauss of Buffalo said that one great reason for the impotence of therapeutics in nervous disease is that insufficient doses of drugs are employed. In syphilis of the brain, for instance, he believes that enormous doses of mercury should be employed. He uses the corrosive sublimate by the injection method and in cases of necessity does not hesitate to use even as much as a grain at a dose. Of course a certain tolerance to the drug must be obtained by gradually increasing doses or fulminant toxic symptoms would develop. Dr. Krauss prefers to give mercury by injection, as the ptyalism and other symptoms of its administration are less. Fowler's solution is of the greatest service in chorea, but the small doses administered utterly fail to enable it to exert properly its activity. The dose is said to be 1 to 10 minims, with a maximum of 15 minims allowed by some. Dr. Krauss gradually increases the dose of Fowler's until the patient is taking 30 minims or sometimes even a spoonful of it. This gives effects when the small doses utterly fail. For neuralgia Dr. Krauss believes in pushing nitroglycerin. He has had a patient take as much as 30 minims of a 10-per-cent. solution of nitroglycerin and another patient, taking the drug for a year, was able to take a teaspoonful of a 10-per-cent. solution without inconvenience and with good therapeutic results.

Generous Dosage for Therapeutic Effect.—Dr. Abraham Jacobi of New York objected to the title of Dr. Krauss's paper, "Toxic Dosage in the Treatment of Some Nervous Diseases." He said that the word "toxic" would deter general practitioners from taking advantage of the practical suggestions the paper contains. With many remedies it is necessary to use them to distinct physiological effect or no therapeutic result will be obtained. Alonzo Clark showed fifty years ago that opium, to have its curative effect, must be used to what would ordinarily be thought excess. Dr. Jacobi himself uses ten to twelve grains of digitalis repeated three or four times at intervals of three hours, so that thirty to forty grains are given within eight or ten hours. These doses are not employed in ordinary cases, but when special indications call for special measures. In pneumonia, when oxygen fails to give relief and the right heart is failing, this heroic treatment has often saved life.

Alcohol in Pneumonia.—Dr. R. H. M. Dawbarn of New York said that Dr. E. G. Janeway of New York told of his personal experience in double pneumonia. He was under the care of the elder Loomis, who insisted at the critical period of the illness in administering two quarts of brandy each day for two days. Dr. Janeway ascribes to this heroic stimulation his recovery from the extremely severe symptoms under which he was already laboring when this free administration of the brandy was begun.

Large Dosage in Delirium Tremens.—Dr. Hopkins of Buffalo said that in hospital experience major delirium tremens is an extremely serious disease. Very few of the cases recover. Of late he has found that the use of heroic measures may be successful in averting the fatal issue. He does vivisection and according to the size and appearance of the patient takes away from sixteen to thirty-two ounces of blood. This is replaced by the subcutaneous injection of an equal amount of normal salt solution. Since using this method of treatment the mortality of these cases so

often fatal before has been reduced to below 2 per cent. The venesection removes a good deal of the poison from the system. The use of salt solution prevents the circulation from laboring with blood too thick and, moreover, it encourages the emunctories, especially the kidneys and the skin, to further elimination of toxic substances.

Large Amounts of Digitalis.—Dr. Lyons of Geneva said that he has had something of Dr. Jacobi's experience with the life-saving properties of large doses of digitalis. In a case of major delirium with very threatening symptoms and in which it seemed that the heart must surely fail, he stayed by the bedside during the night and administered teaspoonful-doses of the tincture of digitalis every hour for six hours, so that the patient received all together four ounces of the remedy. The action was most favorable and the digitalis seemed to be life-saving in effect.

Carotid Extirpation for Malignant Growths.—Dr. A. T. Bristow of Brooklyn said that he has had clinical and surgical experience with three cases of inoperable tumors, malignant in character, in the neighborhood of the throat in which he tied the carotids in the hope of starving out the malignant neoplasms. In a recent case he tied off the external carotid itself and all of its branches except the submaxillary. This he occluded, in the manner suggested by Dr. Wyeth, by the injection of gelatin. No bad results followed and the tumor at once began to decrease in size and has given the patient very little discomfort since. In an ordinary thin person there is very little difficulty in reaching and tying off the arteries. In Dr. Bristow's last case, however, his patient was a stout man with a short neck and the difficulties were extreme. The arteries were deep in the tissues and hard to get at. The bifurcation of the common carotid was much higher than usual and the search for the branches very elusive. Only with great difficulty and very little satisfaction was the operation finally accomplished.

Pathology of X-Ray Changes.—Dr. Carl Beck of New York City said that the changes in the skin and deeper tissues caused by the X-rays are well known. The terra-cotta-like hands of X-ray experts and the cracked and fissured hands with altered nails of those who work much with the agent are well known. Now the X-rays promise to be curative as well as harmful. In cancer and lupus they have undoubtedly done good and produced lasting benefit. The principal change produced is in the arteries. Inflammatory conditions in and around these lead to limitation in the caliber of the arteries and this at least partly shuts off the blood-supply to the skin and other tissues. In this way malignant growths are starved and low-grade pathological tissue, such as occurs in lupus, is destroyed. Such tissue has less resistive vitality and less reactive force than normal tissue. Dr. Beck reported some cases of lupus in which the X-rays have accomplished good results after many other forms of treatment had failed completely. This new therapeutic agent is of great promise and seems but the prelude to other similar remedies.

Civilized Indians.—Dr. H. D. Lake of Gowanda described the changed conditions of life of the Iroquois Indians and the consequent deterioration of health. They were magnificent specimens of manhood and womanhood when the Whites first came. Now they have taken on tendencies to obesity and have decreased in average height. They have lost their great strength and their capacity to stand fatigue, cold and hardships. Especially have they taken up the vices of civilization and suffered from its diseases. Alcohol has caused them to degenerate rapidly and has lowered their resistive vitality for disease. Tuberculosis has especially proved fatal to them. Only for their wonderful fertility this would have wiped them out long ago. Pneumonia is seldom recovered from, or, if it is, it is followed by acute or chronic tuberculosis. Bronchitis is very frequent and is liable to have tuberculosis grafted on it. A young man comes for the treatment of some apparently mild disease and proves to have serious ravages of tuberculosis in his lungs.

Venereal Diseases.—An epidemic of syphilis among these Indians lasted ten or fifteen years. Now the Indians seem to be immune. It is rare to see an initial lesion among them. The scars of the disease may be seen in the older men. They were treated by their medicine men with herbs and no mercury was used. No case seems to have gotten well in less than two years. Syphilis has undoubtedly added to the degeneration of the tribe. Gonorrhea now rages among them and the women suffer severely from the effects upon their internal sexual organs. The Indians have suffered by getting away from Nature. A marked improvement has come among them in recent years as the result of the school-training of the younger generation. They have been trained by athletic sports in the midst of their college work and come back as magnificent specimens of humanity to retain their good habits and be a source of emulation to others.

The Smallpox Problem.—Dr. Ernest Wende of Buffalo said that the present widespread epidemic of smallpox brings up very opportunely the question of the necessity for special training for medical officers of health. Undoubtedly the spread of the disease throughout the country has been due at least in part to failure of authorities to recognize the disease immediately on its introduction into a new neighborhood and this has allowed the disease to gain a foothold. There is need in this country of a special set of post-graduate courses for the instruction of health officers in those duties that require immediate action or there may be serious results. The present system that allows health officials to be a part of the patronage of a political boss, so that favoritism and not capacity for the position counts, is fatal to true hygiene. If fully and properly applied vaccination would suffice to stamp out smallpox in this country. Unfortunately, there is a class of even educated people who unite in opposition to vaccination. Vaccination regulations must be enforced and the danger from smallpox will be diminished. There is any amount of recent statistics in foreign countries to prove the protective influence of vaccination. Efforts spent on enforcing this idea are not lost, because they apply not only to smallpox here and now, but they make clearer to people the usefulness of preventive medicine in other diseases.

Vaccination as an Extinguisher.—Dr. Smith of Cohoes said that vaccination puts out smallpox as a pitcher of water puts out a small fire at its inception. It is just as criminal to permit smallpox to gain a foothold in a community for lack of vaccination as it is to let a conflagration grow out of a little fire for lack of water.

SYMPOSIUM ON PARESIS.

Etiology of Paresis.—Dr. Arthur W. Hurd of Buffalo said that recent statistics serve to show that syphilis is probably the principal cause of paresis. Foreign statistics give a higher number of paretics who have had syphilis than do statistics collected in this country, but that militates very little against the theory of the syphilitic origin of the disease if certain considerations are kept in mind. In this country friends are more apt to be ignorant of the syphilitic incident in the patient's history, or, if they do know it, they are from motives of delicacy more prone to con-

ceal the fact than is the case in foreign countries. The average number of paretics who are also syphilitics is about 68 per cent. This is all the more striking as less than 10 per cent. of other forms of insanity have a syphilitic history. It has been found in London that of the patients who had undoubted skin lesions of syphilis, only 80 per cent. confessed to having had the disease. They were either sincerely ignorant or they deliberately tried to deceive. Many of the skin lesions were comparatively recent, so that the history was fresher in mind. In Vienna out of over 80 patients suffering from indubitable tertiary symptoms of syphilis, only 54 per cent. gave a history of an initial sore and secondary symptoms. This set of statistics represents almost the same number of exceptions that occur among paretic patients. The fact that some paretics apparently have no syphilitic history does not argue very forcibly against the syphilitic origin of the disease in by far the majority of the cases.

Experimental Inoculation.—In Europe experimental inoculations that would be considered unjustifiable in this country were made with the virus from syphilitic patients upon asylum paretics. Altogether nine hopelessly demented paretics were thus inoculated. Not one of them took the disease—a sure sign that they must all have had syphilis before and acquired immunity to it. Most of these paretics were patients who gave no history of syphilis and in whom, therefore, the existence of immunity might be doubted.

Paresis Distribution.—While Egypt and Japan suffer very much from syphilis, paresis is rare in either country. This is evidently due to the fact that some other causative element besides syphilis is needed. Syphilis provides the basis for the development of paresis, but nervous overwork, emotional strain, at times even physical exhaustion, furnish the additional causes. Egypt is noted for the do-nothing character of its inhabitants and Japan has not as yet been touched enough by the excitement of the new Western civilization to get into the condition of hurry and worry that actively predisposes to paresis. As Krafft-Ebing said, the two causative elements are syphilization and civilization. The latter factor as yet spares Egypt and Japan. Paresis is most common among military men, actors, good livers, brokers and professional men liable to lives of nervous strain. It is very rare among clergymen, Quakers and among country-people generally, while very common in the large cities. The disease is much more rare among women than men and, in women of the different classes of society affects most those who are most liable to be affected by syphilis. Very few women of the better classes suffer from it.

Juvenile Paresis.—The disease used to be considered very rare in children and youths, but certain special forms of it have been found to occur quite frequently of late years under the age of twenty. In most of these cases there is a history of hereditary syphilis. In some of them there is a history of acquired syphilis. While ordinarily the sexes are very unequally affected, the proportion being usually at least four men to one woman, in these juvenile paretic cases the proportion in the two sexes is nearly equal, as would be expected, since heredity acts impartially to both sexes.

Previous Degenerative Condition.—It has often been noted that, in patients in whom paresis developed after syphilis, symptoms of some mental weakness had existed before the syphilitic infection. It would seem that syphilis finds in an invalid brain an especially favorable field in which to produce further degeneration. Even after syphilis not everyone becomes paretic, but only those whose nervous systems were not over stable beforehand. The changes, for instance, produced by alcohol in the nerve tissues may predispose to paretic changes after the acquirement of syphilis. Trauma or sudden emotion may act on a syphilitically-predisposed nervous system to produce paresis. There can be no denial of the fact that these other conditions are contributing causes of no little importance. It is hard to know just the rôle that alcohol plays in these cases since devotees of Venus are also as a rule worshippers at the shrine of Bacchus and *vice versa*.

Ripening Elements in Etiology.—Certain pathological conditions seem to mature the tissues for paresis after syphilis has done its work. Trauma is one of these. The cases, however, in which trauma has played a causative rôle apart from syphilis are so rare as to be doubted by most authorities. Syphilis, while not the sole factor, is certainly the most frequent cause of paresis. It cannot be found as frequently in the history of paresis as in tabes, but this is rather confirmatory than otherwise, since tabes and paresis are very similar pathological conditions.

Early Diagnosis of Paresis.—Dr. Francis Dercum of Philadelphia said that the problem of the early diagnosis of paresis is not easy. Mistakes are frequent. It is not unusual to find that paresis has been treated for months as neurasthenia when eventually recognized. The resemblance is only superficial, however, and should not deceive the trained and watchful observer. Both classes of patients may complain of being tired, of having peculiar feelings and general symptoms, but the complaints come in very different ways. Of course, when the loss of muscular tone that gives the slouchy walk and blankens the facial expression have developed, it is not hard to recognize paresis, but the disease has certain pathognomonic characteristics long before this.

The Neurasthenic: the Paretic.—The paretic patient seldom comes of himself to consult a physician. He is brought by his friends. He, unlike the neurasthenic, has no long story to tell. Symptoms will be found, but only on careful questioning. He has ringing in the ears, *muscæ volitantes* or sparks before the eyes, and he may have severe lightning-like pains. His friends will tell of lapses of memory and inability to care for his business. As a rule the paretic is scarcely conscious of these things himself. The friends are alarmed about his condition. The neurasthenic, on the other hand, complains of loss of memory and tells of every pain and ache and of every slightest sensation that can be translated into pains or aches for weeks before his visit. The neurasthenic's pains are vague. His friends rather laugh at his symptoms.

Sleep in Neurasthenia and Paresis.—The neurasthenic sleeps well at the beginning of the night; then wakes to remain fretfully awake and rises in the morning tired, not caring to face the day. Toward evening the neurasthenic feels best and is almost ready to persuade himself that there is nothing the matter with him. The paretic tosses during the night and sleeps a little toward morning. He wakes rather refreshed from his sleep and feels best in the morning. Toward evening he becomes exhausted and all his symptoms are then at their worst.

Neurasthenoid Stage of Paresis.—Dr. Dercum thinks it eminently undesirable to say that the first stage of paresis is neurasthenia. The symptoms recall neurasthenia and resemble them somewhat, but can be rather easily differentiated. The visual fields are distinctly narrowed early in paresis and this is a pathognomonic sign. Only very severe cases of neurasthenia have the symptom and then it varies from day to day. The paretic by his manner at once reveals that he is out of touch with his environment. There is a vacant expression even before the smoothing out of the facial furrows from loss of tone in the facial muscles has

taken place. There is a vacant distrait air even before mental symptoms have become very prominent. The preparetic manner is an entity that really exists and is readily recognizable by those who have had considerable experience with it.

Frequency of Paresis.—Dr. Charles G. Wagner of Binghamton said that paresis was first definitely recognized only about eighty years ago. Esquirol described some cases before that which were probably paretic, but he did not realize the significance of the symptom-complex. The disease was not recognized in America until much later. It was very rare in this country even in 1840. It was not overlooked, for some specialists in mental diseases who had seen it abroad were on the watch for it. Statistics show that there has been a constant increase of the disease ever since 1850. During the decade between 1850 and 1860 it first began to play a prominent rôle in the insane asylums of this country.

Present Incidence of the Disease.—At present somewhat less than 10 per cent. on an average of the patients in American insane asylums are suffering from the disease. This is much less than abroad. In foreign asylums between 20 and 30 per cent. of the inmates are paretics, with most of the statistics nearer 30 per cent. than the smaller number. There is quite a little variation in the numbers suffering from the disease from year to year. About the middle of the last decade the figures were higher than at present.

Paresis in the Professions.—At one prominent asylum in this country the professional men suffering from paresis are divided as follows: Actors, 8; lawyers, 7; doctors, 5; military men, 4; clergymen, none. These represent about the usual proportions. Clergymen are usually spared and this is undoubtedly due to the fact that they have syphilis less frequently than members of any of the other professions. The disease attacks those who have trying work to do, who live on their nerves, and spend life in the midst of emotions. The overworked doctor suffers more from mental strain than from physical fatigue.

Other Occupations.—Other trades are not spared. The butcher, the baker, the candlestickmaker, the merchant, the shoemaker, all count a goodly number among the inmates of asylums suffering from this dreadful disease. It is sometimes said to attack headworkers in preference to handworkers, the educated rather than the uncultured. The reports of American asylums at least do not bear out this statement. It is worry, not work that predisposes the syphilitic, or the alcoholic, or the otherwise degenerate to the paresis about to develop. The statistics of our asylums show that the disease rages especially among the native-born. There is a great preponderance of native Americans among the paretic inmates, though, taking the patients at asylums altogether, about two-thirds of them are foreign born.

Deaths from Paresis.—Most of the deaths take place between thirty and forty-five, though asylum reports show deaths under twenty and even over seventy years of age. The disease is inevitably fatal. Dr. Wagner was able to find only one case in recent medical literature in which there was claim of a cure. The disease presents decided remissions and these sometimes last for months. The average duration of the disease, however, is only about two and one-half years. Very seldom will a patient with typical paresis live five years from the first symptom of the disease. The disease is undoubtedly on the increase in this country and careful study will lead to its earlier detection than heretofore.

Limits of Treatment.—Dr. Edward Cowles of Boston said that in the presence of true paresis the physician is absolutely helpless. Very early in the disease when only neurasthenic symptoms are present a history of syphilis confirms our suspicions as to the existence of paresis, but its presence does not help the therapeutics of the disease. Antisyphilitic treatment does no good and probably even does harm once the initial symptoms of paresis have declared themselves. In the early stages of the disease it may, perhaps, be kept from running so rapid a course as it otherwise would by lessening the mental strain on the individual. Oppenheim says paresis is due to stress and syphilis. The stress can be lessened at once with the hope of prolonging the life of the patient. Kraepelin thinks paresis a nutritional disease not unlike myxedema and due to some poison in the blood or the failure to neutralize some toxic product. Sir Dyce Duckworth suggests that paresis is an auto-intoxication. This causes changes in the nervous systems which react to lower tissue metabolism and cause further toxic degeneration of the nervous system. This idea makes the therapeutics in very early stages not quite so hopeless.

Serum Treatment.—Two Scotch observers recently have declared paresis to be due to an intestinal intoxication. Bruce noticed that the initial stage of the disease was always ushered in with gastric disturbance and fever. He procured some serum from blisters of a paretic patient suffering from lumbago during a pronounced intermission in his paresis. This injected into other patients produced an intermission in the others. Bruce proposes to inject horses with colon bacilli and thus produce a serum that he thinks will be of benefit in paresis. Dr. Robinson, the other Scotchman, thinks paresis due to the effect of auto-intoxication upon the cerebral blood-vessels. He considers the toxic substances of intestinal origin and hopes to be able to neutralize their effects before they work their most serious evils.

SECOND DAY—JANUARY 29TH.

Prize Essays.—The only essay submitted bore the title "A Study of the Connective Tissues of the Orbit by a New Method." This enables the recognition of the capsule of Tenon, the insertions of the muscles, and other parts of the tissues of great practical interest. The essay bore the motto *"Palma non sine pulvere."* The name of the author is Dr. Lucian Howe of Buffalo, and to him was awarded the prize offered by the Society.

Treasurer's Report.—The annual expenses of the Society exceeded its income by over $800. The two items that explain this deficit are the salary of an additional secretary at $350 per annum and the semi-annual meeting, the expenses of which were about $500. The Committee reports that if the present deficit continue from year to year, it will not be long before the surplus at present in the Treasury will be materially lessened.

Treatment of Ringworm.—Dr. George Thomas Jackson of New York said that ringworm of the non-hairy skin is easy of treatment. Most of the cases do not come for treatment, but are cured by sulphur ointment or some simple home remedy. On the hairy scalp it is very obstinate and the patient wanders from doctor to doctor. Dr. Jackson has for some years been using a remedy that gives excellent results. He employs goose grease as an excipient. A dram of iodine is dissolved in an ounce of the goose-oil. The remedy is applied twice a day until some irritation is produced, then only once a day. If the reaction is severe the remedy is stopped for some days. The pain of the application is a little severe at first, but passes off. The first effect of the remedy is to cause the fall of the hair so that the patch looks like one of alopecia areata.

After a time a new growth of hair occurs and this is the sign of cure. No epilation is needed. The method is extremely simple. If the reaction is severe, salicylated oil may be employed for some time until the inflammatory condition lessens. It takes just three weeks now to cure barber's itch, formerly so obstinate a disease. This is true not only in private practice but also in hospital practice. Certain rare cases resist even this treatment. For these Dr. Jackson recommends one-half to one dram of croton oil to an ounce of sulphur ointment. It is not always easy to get genuine goose-grease. There are factitious articles sold under the name that are unsuitable. A reliable drug-house will furnish it, however.

Three Years' Experience.—Dr. Baum said in the discussion that he had had three years of experience with this method of treatment with such excellent results that he heartily endorses Dr. Jackson's recommendation. On sensitive skins Dr. Baum has found 5 per cent. wintergreen-oil ointment very satisfactory.

Society Initiation and Neurosis.—Dr. Frederick Sefton of Auburn gave the details of a case in which the history included severe hazing. The patient, a student at an academy, in the course of initiation into a secret student society was taken at night to a graveyard and made to sit for half an hour on a tombstone; then he was hung up by the thumbs till he fainted and lastly rolled in a barrel with nails on the sides. During this procedure he lost consciousness and could not be revived, so he was left in the hallway of his home. He did not return to the school. About a year after he began to be peevish and irritable, especially to his friends. Finally, in a state of excitement he attempted to shoot his sister. He was followed, tried to escape, lost consciousness, and when he came to said he had no memory of his acts during the period of excitement.

Psychic Epilepsy.—Later he had several such attacks. In one he was found suffering in the garden and had evidently taken some of the Paris-green he was using for potato bugs. He had no memory of this, but asked not to be left alone any more lest he should hurt himself. Under bromides and outdoor exercise he improved. He has now been for several years the purser of a coastwise steamer and is healthy and happy. All his friends believe he had lost his consciousness when he attempted murder and suicide. It is evident, however, how serious would have been his case had he killed his sister when he shot at her. Dr. Sefton used the case as an illustration of the necessity for an impartial medical expert to advise the Court in such cases.

Fright and Epilepsy.—Dr. William Browning of Brooklyn said that fright can only be considered a cause in epilepsy when it immediately precedes the original attack. These cases are complicated medico-legally by the fact that it is only when patients are irritated by some interference with their plans that they become violent. This adds to the suspicion of guilt.

Pseudoleucemia.—Dr. John L. Heffron of Syracuse said that the pathogenesis of Hodgkin's disease or pseudoleucemia is as yet a mystery. The best authorities seem to think that the disease is a tuberculosis of the lymphatic structures. Hence, the following case may be interesting. The father suffered from gravel and endocarditis. His mother's family history contained heart-disease also. The patient came to be treated for a cough. Enlarged glands were found above the clavicle. The superficial veins were enlarged over the anterior thorax. All the other lymph-glands were enlarged especially on the right side. There was some bagging of the right lung. Some subcrepitant râles on deep inspiration were to be heard. Sputum was collected, but no tubercle bacilli were found. The blood gave a simple picture of anemia. He was advised to use Crédé's ointment and the iodides were used internally. His skin became very itchy. His breathing became more and more difficult, especially when lying down. It was evident that some enlarged glands were pressing on the right bronchus and almost occluding it. He coughed more, but still no tubercle bacilli could be found. His urine was carefully examined for tubercle bacilli, but none were present. He gradually grew worse, orthopnea developed and he died from the pressure of the enlarged glands upon nerves and arteries as well as the bronchi. Careful examination of the tissues was made after death to find if possible tubercle bacilli anywhere in the body. The only condition present was a lymphosarcomatous degeneration of all the affected glands.

Leucocytosis in Diagnosis.—Dr. Thomas R. Brown of Baltimore discussed leucocytosis as an aid to diagnosis and prognosis. He said that Metschnikoff's phagocytic theory brought the white blood-cells into prominence. In more recent years the blood-serum has been found bactericidal and this has seemed to lessen the importance of the white cells for resistive vitality. Since it has been shown that the bactericidal properties of the blood-serum are due to nucleoproteid substances the white cells have regained their reputaton, for these substances are contained in abundance in the white cells. The presence of a physiological leucocytosis during the height of digestion should be a warning not to count the leucocytes for diagnostic purposes just after a meal.

Eosinophilia.—The presence of a large number of white cells that give the eosinophile reaction is of special significance. In typhoid fever it means a favorable prognosis if it occurs early. In trichinosis eosinophilia is almost pathognomonic. It occurs also in cases of intestinal parasites as the anchylostoma duodenale. It is probable that for soldiers returned from the tropics this reaction may serve to rouse suspicion of the presence of intestinal parasites that might otherwise escape notice. Dr. Brown said that an excess of lymphocytes is present in the blood in a very early stage of whooping-cough. This enables the disease to be recognized during the period of simple catarrhal symptoms and precautions may be taken not to expose other children. The differential blood-count promises to be of service in the detection of a number of infectious diseases. This is the most common form. It usually means severe infection or pus formation. In a case of acetanilid-poisoning this form of leucocytosis was present, giving rise to the idea that secret drug habits may perhaps be detected by the blood-count. Sudden rises and falls in the number of leucocytes usually call serious attention to the patient's condition. In appendicitis it may mean perforation with peritonitis. In general, it may be said that blood-counts are not infallible and must not be taken alone, but in connection with other symptoms it is often of diagnostic importance.

Abscess of Liver.—Dr. Edgar A. Vander Veer said that abscesses are usually associated with dysentery. Knowledge of the subject comes from India. Interesting material on the subject is now coming from the Philippines. This case reported was thought to be one of empyema until the dressings were saturated with bile. The patient had served in the Philippines, where he contracted dysentery. As this could not be cured he was finally discharged. For a year his dysentery continued with some intermissions. Finally, he developed a tender swelling on the right side that greatly interfered with respiration. This was thought to be in the pleural cavity. It was aspirated and three and one-half pints of brownish purulent fluid removed.

Later on an open incision was made and 1,000 c.c. of similar fluid drained off. This contained no micro-organisms. It was suspected to be tuberculous or to be due to the pneumococcus, the organism, as sometimes happens in these cases, having disappeared. When the bile flow began the true nature of the case was realized. The patient made a good recovery, though for a time his dysentery became severe again.

Gunshot Wounds of Liver.—Dr. E. W. Mulligan of Rochester detailed the case of an Italian salt-miner who shot himself in the abdomen while in a fit of despondency. Wounds of the liver have heretofore been thought practically always fatal. During the Civil War very few recovered. Pirigoff, in 1865 said they were always fatal. Of the three conditions of the liver, ruptures are most fatal, incisions next, and gunshot wounds least fatal, but even these have a mortality of over 60 per cent. Fortunately, the prognosis is now growing better because of modern advances in surgery. Schlatter advises tamponade of the wounds; the cautery cannot be trusted entirely and sutures tear out. Bergmann suggests protecting sutures with gauze to prevent their tearing through the liver tissue. The wound of entrance into the liver in Dr. Mulligan's case was small and needed no treatment. The wound of exit was jagged and torn, bleeding profusely, and required packing. Three yards of gauze were used for packing and the end brought out through a counter-opening made for drainage. The bullet was found in the muscles of the back and was removed. The patient was out of the hospital in a month after his frustrated suicide.

Surgical Treatment of Peritoneal Tuberculosis.—Dr. John W. Whitbeck of Rochester reported three cases of tuberculosis of the peritoneum treated by incision and irrigation of the peritoneal cavity with salt solution. The first patient had suffered for some time from abdominal tenderness and accumulation of fluid. The abdomen was opened, irrigated with salt solution and the patient made a good recovery, being now healthy and strong. The two other patients died, one from pulmonary tuberculosis, the other from a tuberculous rectal fistula. These latter cases seem not to have been taken in time.

Unusual Herniæ.—Dr. John B. Harvie of Troy said that operators for hernia have found almost every viscus in the sac. Dr. Harvie has found the ovary several times, the appendix a number of times, and even the kidney, a loose floating organ, presented at the hernial ring after reduction of the intestinal contents of the sac. In a recent case he found the urinary bladder in the sac. The viscus was not recognized until after incision, when urine flowed. It was then reduced and a catheter passed every hour. The patient recovered without incident. In a number of reported cases the bladder's presence has been unsuspected and it has been wounded. It needs to be looked for more carefully.

Modern Methods of Diagnosis.—The President, Dr. Henry L. Elsner of Syracuse read his annual address on the subject of "The Value to the Physician of Modern Methods of Diagnosis." [See page 193.] He said that in recent times advances in the application of scientific principles to the diagnosis of disease have brought with them a metamorphosis of the art of medicine into a practical science. The laboratory is now recognized as the right hand of the medical man. Physicians who have failed to keep in touch with laboratory diagnostic methods are now far behind their wiser fellows. The sale of such books as that of Von Jaksch or that of Simon shows how widespread is interest in scientific diagnosis. The president then spoke of the advances in the chemical diagnosis of gastric disease, of the microscope and the centrifuge in urinary diseases and of the progress in the diagnosis of hematological conditions. All these are in the line of securing greater exactness of diagnosis. The old objection that a man cannot be scientific and a good practitioner no longer holds. The hope of the future of medicine is the union of scientific training with clinical training. For this the Twentieth Century opens most auspiciously.

Election of Officers.—The following officers were elected for the coming year: President, Henry Reed Hopkins, Buffalo; Vice-President, William A. Moore, Binghamton; Secretary, Frederick C. Curtis, Albany; Treasurer, O. D. Ball, Albany.

[To be continued.]

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Held December 3, 1901.

The President, Joseph Collins, M.D., in the Chair.

Tumor of Brain.—Dr. M. Allen Starr presented a woman who had been brought to him by her family physician, Dr. Bush, on November 1, 1900. She had been perfectly healthy before this illness and there was absolutely no history of specific disease. On July 1, 1900, she had been exposed to a very intense heat and suddenly after this she had had a general convulsion. She had been ill after this for two or three days and had then recovered, but the convulsion had been repeated two weeks later and she had had them at intervals of two weeks to a month up to the time of coming to him. During this period she had lost flesh and strength and had suffered from dizziness and impairment of vision. In October, 1900, the left side of the body had become distinctly weaker. Her husband was quite positive that the convulsions were usually limited to, or were much greater on, the left side of the body. The attack began with numbness in the finger and thumb of the left hand; then a closure of the hand occurred, after which the numbness extended up the forearm and arm, and the forearm became flexed and the arm abducted. Lastly, there was a shaking. The numbness would extend up to the shoulder and then she would lose consciousness. After that the leg would become convulsed and the left side of the face would twitch. On examination he had found no strabismus or apparent paralysis of the face or tongue. The left hand was weaker than the right, as shown by the dynamometer. The left knee-jerk was increased, and there was some numbness in the hand as compared with the other side. She had suffered a good deal from headache. When seen a month later the attacks were more frequent, so that she was having as many as eight in a day, and the headaches were more severe. When seen again in January, the attacks still continued, but were not quite so severe, and she did not lose consciousness. She was losing about half a pound of flesh a week. The difference in the two hands by the dynamometer was represented by 40 and 60, as they had been at first. Operation had been repeatedly urged by him, but consent had not been obtained until March 19, 1901, when her condition had been much poorer, and there was a beginning optic neuritis. She had been sent to Dr. A. J. McCosh at the Presbyterian Hospital. It was thought that the lesion was located in the middle third of the motor zone, in the posterior central convolution, and an incision was made in accordance with this view. The operation was done under chloroform, a horseshoe incision being used. The skull was sawn through and the brain exposed. On lifting up the flap of [illegible] it was evident that there was some thickening of the

dura. The dura was reflected, but was nowhere found to be adherent. Posterior to the fissure of Rolando and occupying the middle third of the posterior central convolution, the brain surface was yellow and was markedly destitute of blood-vessels. It was evident that this discolored mass was a tumor lying upon the brain. It had a thin capsule, but was carefully separated from the brain tissue. In the interior, however, it was not limited by a capsule. On removal, the mass measured one inch anteroposteriorly and 1¼ inches vertically, and was one inch thick at its thickest point. There was a smooth external surface, but it was nodular internally. On section, it was hard and not at all vascular. The cavity in which the tumor had lain was lined by compressed convolutions, but at the bottom the tumor invaded the white matter. There was no hemorrhage from the pia and the pulsation of the brain quickly returned. She made a rapid and uninterrupted recovery from the operation. Immediately after the operation there had developed a hemiplegia of the left face, arm and leg. This had gradually passed off and there was nothing left of it except a slight weakness of the hand. She had been entirely free from the attacks since the operation, had been free from headache and had gained about twenty pounds in weight. At the present time there was an intention tremor and an athetoid movement in the left hand. On the left side tactile sensation, temperature, pain and muscular sense were all impaired to about the same extent. She was not able to determine by the feeling the nature of many objects when grasped by the left hand—a condition that had not existed before the operation. The knee-jerk had increased upon the left side. The optic neuritis had entirely disappeared. The hemiplegia he would ascribe to the tearing of the brain during the operation. The tumor proved to be a sarcoma.

Intense Flushing of the Face.—Dr. Edward D. Fisher presented a man of twenty-two, who from the age of sixteen had had periodic attacks of intense flushing of the face, sometimes in the form of a distinct red band. It never extends farther down than the chest. He is dull and stupid at these times, although he has never lost consciousness or had a distinct epileptic attack. It was not connected with nervousness or emotions; it resembled erythromelalgia. Iodide and bromide of potassium were the remedies that had given the greatest relief. The man's habits were excellent, and he is largely in the open air, being a carpenter.

Dr. W. M. Leszynsky said that he had seen two patients with a similar disturbance of the cervical sympathetic as a result of excessive coffee drinking.

Dr. Joseph Collins suggested that the man be given half a dram of fluid-extract of cascara sagrada every night for two weeks, with no other treatment whatever. The affection was evidently a localized vasomotor paresis confined to the cephalic area which had been proved to be in connection with disturbance of the lower intestine. He was not inclined to look upon this as a serious disorder, but rather as originally a toxemia and secondarily a bad habit.

Dr. Joseph Fraenkel said that he had had a similar case under observation for several weeks at one time, and Dr. C. L. Dana, who had also seen the patient, had been of the opinion that it was a vasomotor paresis arising from intestinal toxemia. There were also some neurasthenic symptoms directed to the sexual sphere.

Dr. Fisher said that he had treated the boy at first on the basis suggested by the last speaker, but further observation had led him to think this was a mistake.

Tumor of Cerebellum Involving the Abducens Nucleus.—Dr. M. G. Schlapp presented a man, twenty-one years of age, who had come to him about six weeks ago. There was no tuberculosis in the family and he had had no syphilis. About two years ago he had first noticed that at times he would become dizzy and that this would be followed by headache and vomiting. Shortly after this he had fallen out of a wagon and since then the left side had grown weaker. Examination of the eye showed choked disk, weakness of the left leg and an ataxic gait. The ataxia was most marked in the left leg; the knee-jerks were absent; the plantar and abdominal reflexes were present; the pupils were equal and reacted to light; there were no sensory disturbances. A week ago he had developed a disturbance of the conjugate movement of the eyes, which had disappeared in two days. The convergent reaction was, however, all right. He had made a diagnosis of a tumor involving the anterior part of the left side of the cerebellum and in some way affecting the abducens nucleus.

Tumor of Posterior Central Convolution.—Dr. Schlapp presented a woman, forty-one years of age, a Bohemian cigar-maker. She had enjoyed good health up to five years ago. At that time she had fallen down stairs and had sustained some contusions, including one on the left side of the head. Subsequently the right arm and shoulder had become the seat of twitchings, and there were attacks of loss of speech. After three years they had extended over the shoulder and neck to the face and tongue. At first these attacks had occurred once in two weeks, but recently there had been many in a day. Latterly she had also suffered from intense shooting pain in this limb. He had made a diagnosis of a tumor in the posterior central convolution extending back into the parietal lobe. There was astereognosis and impaired tactile and muscular sensibility on the affected side. Pain and temperature sense were not specially disturbed. Dr. Woolsey had operated upon this patient and had found a yellowish and somewhat indurated area, about the size of a dollar, in the posterior central convolution. A section of this tissue was exhibited under the microscope and it showed that the mass removed was not a tumor. Since the operation the strength in the affected hand had improved. She had had four convulsions. The case was presented as having a possible bearing on the question of astereognosis. Apparently the anterior central convolution had not been involved in the growth. It was probable that this convolution was the one having to do with motion, whereas the posterior central convolution had to do chiefly with sensation. In astereognosis the pain and temperature sense are not usually involved, whereas tactile and deep muscular sense are involved. It was known that the two latter do not decussate in the spinal cord, but end in the columns of Goll and Burdock.

Dr. B. Onuf said that he had seen a recent case exhibiting marked conjugate deviation together with a very decided ptosis on the left side and on the right side a paresis of the abducens nerve. This deviation had come on after an apoplectic attack of hemiplegia. He did not think such a case could be explained by the involvement of the abducens nucleus; the lesion was evidently in the region of the third nucleus. It was possible that involvement of the posterior longitudinal fasciculus might explain the deviation. In his case the deviation was permanent. The affection of the right auditory nerve would confirm the theory that the abducens was affected.

Multiple Endothelioma of the Dura.—Dr. Hunt presented this specimen, which was derived from a woman, forty-five years of age, in the Montefiore Hospital. When fifteen years old she had become suddenly deaf. Two years before admission she had be-

gun to suffer from headache and these had persisted. There had been no vertigo. At times her legs would suddenly give way and she would fall. On admission, examination showed that there was a tendency to fall to the right; the right pupil was larger than the left; facial innervation on the right side was deficient; the tongue deviated to the left; the optic nerve showed choked disk, and weakness of the right upper and left lower extremity was very marked. The tendon reflexes were all exaggerated, but this was especially noticeable in the right arm and left leg. The right patellar reflex only was present. At the autopsy over one hundred tumors were found on the dura, aggregated chiefly about the falx, but extending over the convexity on either side. Four of the tumors were larger than the others. At the base of the brain the dura mater was free, but there were two tumors, the size of a pigeon's egg, occupying the interval between the pons and the medulla and causing a pressure atrophy of the middle peduncles on each side. These tumors were found to be endotheliomata and the vessels showed considerable calcareous deposit. There was no evidence of malignancy.

Gliosarcoma of the Right Frontal Lobe.—Dr. Hunt also showed this specimen, taken from a man, forty years of age, who had been brought to Bellevue Hospital because he had fallen in the street. According to friends, he had been acting very peculiarly for the past four months. He was moderately emaciated and the face was flushed. There was an incomplete left-sided hemiplegia with loss of skin and tendon reflexes on the affected side. He was stupid, but could be easily aroused to answer questions. He showed a strong disposition to turn everything into ridicule. There was no conjugate deviation of the eyes and no aphasia. The pulse was not slow. At the autopsy the meninges were found to be normal, but the convolutions over the right frontal lobe were flattened and very edematous. On making a section into this lobe a large tumor had been found growing in the white substance. It had grown outward and downward into the frontal cortex. The tumor proved to be a gliosarcoma.

Brain Tumors.—Dr. M. Allen Starr opened the discussion on this subject, reporting the following case: The patient was a boy of eleven years, who had come to him after treatment for malaria by other physicians because of the persistence of morning headaches. These headaches had begun in June and had gradually increased in severity up to October 8th, when Dr. Starr had first seen him. The boy was then dull, spoke very slowly, and would drop asleep if left alone for a very few minutes. The left external rectus was a little weak; there was nystagmus and double optic neuritis. He had suffered from vertigo and had vomited twice unexpectedly. His gait was quite ataxic and the left limbs assumed involuntarily abnormal positions. There was no inability to smile, either voluntarily or reflexly. The ataxia of the right leg was very marked and was associated with a peculiar involuntary position of the hand and arm. There was apparently no anesthesia on the left side and no hemianopsia. A diagnosis of tumor of the optic thalamus had been made at once because of these forced positions. Dr. Starr said that he had seen such a case in Meynert's clinic in Vienna. Meynert considered these automatic movements and forced positions as a voluntary correction of a delusional state. The question of operation was not entertained. As the boy's father had died of general paresis the boy was put on mixed treatment and this had been pushed vigorously for a number of weeks. During this time the boy had grown steadily worse and had had several collapses accompanied by a pulse of 40 and rapid breathing. He had been last seen on October 27th, and had been able then to understand what was said, but could not talk at all. He was totally paralyzed on the right side and was able to turn the head only to the middle line. There was apparently no disturbance of sensation on the paralyzed side. The limbs were no longer held in stiff positions, but were relaxed and the tendon reflexes were abolished. There was no complaint of headache. The pulse was 80, the respirations regular, and there was no fever. He died quietly on the following day. The autopsy revealed the presence of a tumor occupying the optic thalamus on the left side, which was enormously enlarged. It was completely infiltrated by a sarcoma. The tumor had apparently compressed the internal capsule and had infiltrated all of the tissue of the segmentum about the corpora quadrigemina. The ventricles were enormously distended with fluid.

Dr. Starr said that this case had led him to look over his private records of brain tumors for the past six years. He had seen in this time 25 cases. Fifteen of the patients were males and ten females. All ages appeared to be about equally liable. The average duration of the disease had been eleven months, which was much shorter than generally stated. The tumors had been distinctly located in 15 cases and it had been possible to operate in 4 cases. No diagnosis of tumor whatever had been possible in 2 cases. One of these was a patient whom he had been asked to see because it was purposed to commit him to an asylum. There was a history of chronic alcoholsm, some headache and morning vomiting; great mental irritability and imperfect memory. At times he was very violent with his family, though perfectly quiet in the presence of others. In the previous month, on two occasions, he had had sudden attacks of coma lasting about half an hour. Two days after this examination the patient had suddenly died and the autopsy had revealed a large tumor occupying the left superior parietal convolution. The other case had been seen in consultation with Dr. Biggs. Several physicians had agreed upon the diagnosis of bulbar paralysis. There was no optic neuritis and no headache. At the autopsy, a small tumor had been found occupying the entire medulla oblongata. Localizaton had been impossible in 8 out of his 25 cases. In 19 an operation had been absolutely impossible, either because of the absence of a diagnosis or because the tumor was inaccessible. The operation had been done in 6 cases and in 2 had been successful in that the tumor had been found, but one of these patients had died. Therefore, there had only been one patient out of 25 who had recovered. In one case, astereognosis had been considered the most important symptom of localization and consequently the parietal region had been freely exposed, but no tumor had been found. In one case in which the tumor had been in the cerebellum Dr. McCosh had operated. To relieve the distention of the ventricles they were tapped and drained. Sixty ounces of fluid a day had been obtained from the lateral ventricles. The patient had finally died, and an infiltrating tumor of the cerebellum had been found. In another case of cerebellar tumor, the ocipital bone had appeared worm-eaten at the operation and had been the seat of such a profuse hemorrhage that further exploration had been considered inadvisable. In a summary of the cases of brain tumor made by him in 1896 it had been shown that about 7 per cent. of brain tumors are operable and that of the cases operated upon about one-third recover from the operation. These earlier statistics had been made up from a large number of cases by different operators and had not been from his own records alone.

Dr. A. J. McCosh said that the case shown by Dr. Starr was an unusually favorable one for operation be-

cause of the accuracy of the diagnosis, the accessibility of the growth and its freedom from vascularity. Most of the brain tumors that he had seen had usually caused considerable hemorrhage and severe shook. The statistics of these 25 cases seemed to him to come more nearly to the truth than the older ones giving a more favorable percentage.

Dr. Leszynsky said he wished to report the further progress of the case reported by him to the American Neurological Association. The patient had been suffering from symptoms pointing to a lesion in the motor area for nearly two years before coming under observation. The tumor had been found at operation to be an endothelioma of the motor cortex. The operation had been done two years and a half ago and, although the patient had relapsed more or less into a hemiplegic state, he had practically recovered. The localization in this case had been exceedingly accurate. No untoward result had followed the operation and no additional damage had been done to the brain by the operation. The patient was still engaged as an accountant.

Dr. Onuf reported a case in which the localization had been very satisfactory. The history had begun in July, 1901, with slight jerkings of the shoulder and hip, followed by weakness of the left leg and arm. About two months after the onset of the symptoms the speaker had seen him and, although suspecting brain tumor, had placed the man on vigorous antisyphilitic treatment for two weeks. A peculiar feature had been that there was chiefly an affection of the abductors, flexors and extensors of the hip, while the extensors of the knee had been less affected, and the muscles of the feet hardly at all. The jerkings had been purely of the Jacksonian type. The case was remarkable because of the absence of headache and local tenderness. The diagnosis had been made, chiefly on the predominance of the affection of the central part of the extremities, of a tumor situated between the shoulder and hip centers, probably quite near the cortex. Immediate operation had been urged, but it had not been done for three weeks. The tumor had been found directly beneath the trephine opening. There was much shortening, so that a sound could be introduced for two inches without encountering resistance. The microscope showed the tumor to be a gliosarcoma. It had been impossible to remove all of the tumor.

Dr. Schlapp said that in his specimen there was an arteriosclerosis with an increase of gliar cells and the deposition of calcareous material. He had not made the diagnosis of tumor involving the abducens nucleus entirely on the conjugate deviation, but the fact that the left side of the face had been weaker than the right had seemed to confirm that view.

Dr. Joseph Fraenkel said that he had seen a few days ago a boy of about eighteen, who claimed to have been well until struck in the back of the head by a swinging door. After this he had developed paralysis of the right third nerve, followed soon afterward by hemiplegia. He had been operated upon and the base of the brain searched for a basal cyst, but none had been found. He had then been admitted to the Montefiore Hospital. There was paralysis of the left upper extremity and an enormous contracture, with less marked paralysis of the left lower extremity and some slight optic atrophy. Subsequently inquiry had elicited the fact that his companions had noticed long before the accident that the boy showed a peculiar tendency to laughter. Dr. Fraenkel recalled a case which had exhibited similar automatic movements to those reported in Dr. Starr's case. He had come to the conclusion that the tonus of the muscle was the most important factor in connection with the production of reflexes. He would like to know how absence of the reflexes could be explained in Dr. Starr's case.

Dr. Joseph Collins exhibited a photograph of an enormous tumor of the frontal convolution, which had been diagnosticated by an eminent neurologist and by himself as a tumor of the pons. His experience had gone to show that brain tumors are far more inoperable than was generally believed. Statistics had seemed to show that about 7 to 10 per cent. were operable, but when one came to sift these it was found that only about 3 or 4 per cent. were operable. In his own experience but one case had been successfully operated upon, although the operation had been many times essayed. Dr. Bramwell of Edinburgh had contended that his own very large experience had utterly failed to confirm the statistics given by others regarding the operability of brain tumors.

Dr. Starr closed the discussion. He did not feel like subscribing to the statement of the last speaker concerning the almost universal inoperability of brain tumors, for in his own series of 25 two had been distinctly localizable and operable. Accidental hemorrhage had caused death in one of these cases and the other ought to live the usual length of life with only slight disability. It was true a great many cases of brain tumor successfully operated upon were reported while many unsuccessful ones are not reported. Dr. Bramwell's statements were not borne out by his experience, for he had published 61 cases of brain tumor that had occurred in his own practice and of this number there had been at least 7 that could have been successfuly operated upon. Discouraging as the statistics were, it was right to operate upon every case of brain tumor having a distinctly localized and accessible tumor. He believed that if in the case presented by him at this meeting the operation had been consented to when first advised, the patient would have recovered without any disabliity. The conjugate deviation referred to by Dr. Schlapp might occur not only from a lesion of the sixth nerve nucleus, but from anything which interferes with the posterior longitudinal fasciculus between the sixth and third nerve nucleus.

SOCIETY OF DERMATOLOGY AND GENITO-URINARY SURGERY OF NEW YORK.

Stated Meeting, Held January 10, 1902.

The President, Robert Holmes Greene, M.D., in the Chair.

Keratosis Palmaris and Plantaris.—Dr. Lapowski presented a boy, aged seven years, with an eruption which appeared on both palms, without any prodromal symptoms, when he was three months of age. Several months later, before vaccination, the soles also became affected. The eruption on both palms and soles has since persisted. His family history is negative. When nine months old he was vaccinated. This was followed by an eruption which lasted several weeks, the palms and soles remaining the same and unaffected by the vaccinia. He has had none of the eruptive diseases of childhood. Last summer he had an acute attack of malaria which lasted six months and which was followed by swelling of both submaxillary glands. Two years ago the epidermis of both palms and soles was greatly thickened, forming a dense plate. The thickening was even, the surface was smooth, and there was no excessive sweating, or cracks. A delicate hyperemia extended beyond the border of the keratosis. Both soles were similarly affected. During the first years diachylon ointment and salicylic acid (10 per cent.) and ichthyol rubber plaster (20 per cent.) were applied externally and Thomson's solution of phosphorus (gr.

1/100 was given internally with no effect. During the past six months thyroid-extract tablets (gr. ijss, English make), one-half to three a day, have been given and diachylon ointment and lanolin have been applied. Within three months after the institution of this treatment remarkable improvement followed. Examination of the urine by Dr. Sondern showed a concentrated character, moderate indicanuria and a high nitrogenous output for a child of his age.

Dr. George T. Elliott said that nearly all cases are greatly benefited by salicylic acid and diachylon ointment. He had seen a complete cure, with no recurrences after two years, follow the use of salicylic acid and glyceride of lead in lanolin with 5 per cent. menthol added.

Dr. Goldenberg presented a case of lupus vulgaris disseminatus. The patient was a boy, six years old, the youngest of five children, who, like their father and mother, enjoyed perfect health. The patient never had symptoms of scrofulosis, but seems to have been rachitic, not being able to walk until three years of age, and since then has been mentally rather weak. The present eruption began about two years ago, following an attack of measles. It was first localized on the face and then spread over the body. There is a dull red patch on the right cheek the size of a ten-cent piece, soft to the touch, the center cicatrized, the border well raised above the surface. A number of small transparent, apple-jelly tubercles, the size of a pin-head, are found on the flexor surface of the arms. On the lower extremities and hands there are a number of patches similar to the one on the face, some of them scaly, others covered with crusts. A particularly large one, very firm and crusted, occupies the region of the buttocks, and on the right hand there are two tumors papillary in character. There are also some lupus nodules on the site of the vaccination mark, the boy having been vaccinated six months ago. There is a very small superficial ulceration on the mucous membrane of the right side of the lower lip.

Dr. Leviseur remarked that as regards therapeutics electrolysis would be most effective treatment. It causes but little pain, is followed by slight reaction and is very conservative in so far as it does not produce unnecessary destruction of healthy tissue. The operation is performed in the ordinary way, the needle being connected with the negative pole with a current of about thirty volts and two milliamperes. Dr. Cocks said that two years ago he had had the opportunity of seeing a similar case, which was treated by the X-rays with remarkable success. Dr. Goldenberg believes in the efficacy of good hygiene, the administration of cod-liver oil and creosote. He has at present at the Mt. Sinai Hospital another case of lupus which is being treated with the X-rays and which he expected to present at a future meeting.

Nævus Pilosus.—Dr. Lapowski presented this case and said that the child's mother in her third month of pregnancy was scratched on the cheek by a kitten. The nævus as seen on the child's face is upon the cheek and is covered with very fine gray hair, thus suggesting maternal impression. There were two other nævi upon the body. Dr. Otis is not inclined to believe in any stigmata of the kind mentioned. Dr. Cocks remarked that the fetus is already formed at the second month and any maternal impression must occur before that time. Dr. Leviseur asked for advice regarding the use of electrolysis, remarking that the case was not a good one for this method of treatment, because the hairs were very fine and situated closely together, so that one might as well destroy the nævus *in toto* which then would result in a very disfiguring scar.

Lupus Erythematosus Disseminatus.—Dr. Goldenberg presented this case. The patient is nine years of age, with a negative family history as regards phthisis. At the age of six years, the disease appeared on both ears which had recently been frostbitten. On the body it was first observed about a year ago. He is poorly nourished, cachectic, with a hoarse voice, coughs considerably; there is consolidation of the left apex. Both ears are enlarged, hard, red, infiltrated, uneven, and covered with firmly-adherent scales. There are a great number of small, punched-out scars distributed over the ears, and a small number of fresh lesions, namely, pustules, covered with yellowish crusts. The same punched-out white scars are found on both forearms and on the lower extremities. There are also some fresh lesions, deep-seated papules, some with a small vesicule formation in the center, some pustular, others with crusts, which when removed show a deep necrotic focus in the center. The picture of the disease corresponds in every detail to the one described by Boeck, who has called attention to the fact that even after the lesions are healed the diagnosis can yet be made from symmetrical, punched-out scars situated on the ears, arms and legs. The disease is probably identical with Barthelemy's folliculitis, Brocq's *folliculites disseminées symmetriques des parties glabres à tendances cicatricielles*, Bronson's acne varioliformis, Pollitzer's hydradenitis suppurativa destruens, and belongs to the tuberculides of the French.

Dr. George T. Elliott said that to-day everything is tuberculide; sixty years ago everything was scrofulide. The case shown by Dr. Bronson was exactly like the present one. It was investigated by Dr. Fordyce and was found to consist microscopically of granulomatous lesions. There was no history of tuberculosis. The history of the case pointed to an intestinal toxemia. It has been stated that 48 per cent. of the cases were in some way connected with tuberculosis, but what had became of the other 52? They developed under the same conditions, took the same course, and the clinical and pathological histories were absolutely the same. He advised dropping of the name of tuberculides and standing strictly on pathological grounds.

Dr. Whitehead said that Dr. Johnston had shown a similar case and called it necrotic granuloma. He thought the relation of tuberculosis with these cases was rather doubtful. Dr. Goldenberg's case was the only one he had seen in which there was a distinct history of tuberculosis and this was considered an interesting feature of the case.

Dr. Lapowski believes in the tuberculous origin of these tuberculides, a focus being present, if not in the lungs, in some other internal organs, such as the suprarenal glands, the pancreas, the thyroid, etc.

Addison's Disease.—Dr. E. L. Cocks presented a man, aged fifty-three years, who had a chancre in 1871 which lasted six months. He claimed that he had no other syphilitic lesion until 1879. Several dark spots appeared on different parts of his body and four months later the eruption became generalized. The spots disappeared and then reappeared at intervals. He did not consult a physician. From 1877 to 1892 he was perfectly well with a clear skin. During the early part of 1892 he was suddenly taken ill and was unable to leave the house for two months. His physician said he had some of the symptoms of typhoid fever, but admitted that the case was rather puzzling. Nine years of fairly good health followed. In October, 1901, he first noticed the present eruption. Dr. Cocks first saw the patient November 25, 1901, when he was complaining of irritability of the stomach, unaccountable languor and debility, loss of memory, and dyspnea. At two different examinations the pulse was found to run from 36 to 40 per minute. At times nausea followed vomiting and constipation alternated with diarrhea. He had

slight headache, tinnitus aurium at times, and insomnia most of the time. The pigment was found in the rete Malpighii. The mucous membrane of the mouth showed several pigmentary spots. The pigmentation was beautifully shown on the glans penis. He had no medicine for six years until time of observation. He has had arsenic for two weeks only. The speaker thought that from the symptoms, one could very readily make the diagnosis of Addison's disease. The patient has been receiving ninety grains of suprarenal extract a day and the eruption is rapidly clearing up and the other symptoms are also much better.

Vesical Calculus.—Dr. H. H. Morton presented two specimens. The first was removed from a boy, eight years of age. He had had pain and frequent micturition since he was a very small child. He was a masturbator. The urine was alkaline in reaction and contained pus. While the patient was under the influence of chloroform the searcher detected a stone. On August 20, 1901, a suprapubic operation was performed. After the operation the temperature ranged from 103° to 105° F. for ten days. The patient lost flesh and weight. A malarial taint was suspected and quinine was given, eight grains per day. The temperature began to go down and improvement in the symptoms followed at once. The wound closed four weeks after the operation. He called attention to the following points: (1) History of masturbation as a cause for stone; (2) examination under an anesthetic; (3) choice of operation; suprapubic chosen on account of the size of the stone; (4) continuance of high temperature, resembling the septic type, due to malaria.

The second specimen was removed from a boy, seven years of age. He had been idiotic since birth and he always had been troubled with dribbling of urine. He holds the penis because of the pain and when he lets go urine passes in a large stream and with force. At times the stream is shut off suddenly. Priapism was very persistent. Blood was not found in the urine, but there was pus present. December 17, 1901, a perineal lithotomy was performed. The stone was difficult to grasp on account of its size and the wound had to be enlarged to permit of its extraction. On December 28th the perineal tube was removed. January 4th the patient was up and running about the ward. The wound had not entirely healed and the urine still passed through it.

Dr. Greene referred to a report in which it was stated that large crushing instruments were admitted through the urethra in children aged three, four and five years of age. It has not been attempted as much in this country as abroad.

Dr. Otis said that it would certainly be difficult to crush a stone the size of the one presented in so young a child and that it would take a long time; yet, he believed that it could be done and without any laceration of the parts whatever.

Dr. Von Glahn stated that Dr. Marc, at Wildungen, did 400 operations every summer for stone, crushing them in every instance; the patients were out in four or five days.

Litholopaxy Under Cocaine.—Dr. Swinburne showed a specimen which he had removed from a patient at the Good Samaritan Dispensary under cocaine, the patient walking home after the operation. He was a man, sixty-two years old, who had been suffering from frequent and painful urination by day; it was not so frequent at night. Sometimes there was blood in the urine, which was cloudy. Examination with the Thompson searcher revealed the presence of a calculus in the bladder. He gave the man urotropin, and treated the bladder locally for two or three weeks hoping to get him in better condition. During that time he noticed that his urethra was quite tolerant to urethral instruments and the idea occurred to him that a litholopaxy could be successfully performed under cocaine. With this end in view he proceeded to get him used to the manipulations he would have to go through when he came to perform the operation. At each visit, twice a week, after washing out the bladder with a saline solution, he would leave in some of the fluid and insert the lithotrite and grasp the calculus. One day he discovered the presence of a second stone. After doing this he would remove the instrument and insert a No. 22 evacuating tube, attach it to a Chismore evacuating bottle and go through the manipulation of washing out the fragments. No reaction ever followed. This was done for three or four weeks. Early in June he attempted the operation. After washing out the bladder he withdrew the eye of the catheter into the posterior urethra and slowly instilled about six drams of a two-per-cent. solution of cocaine into the posterior urethra and bladder and left it in place. He then injected a syringeful of the cocaine solution into the anterior urethra and had the patient retain it; then, leaving the cocaine in the bladder he filled the latter with sterile saline solution. Unfortunately, he used a small Bigelow lithotrite and crushing was very slow; finally, it became jammed; he removed it and introduced a larger instrument, Keyes, which very quickly reduced the fragments of one calculus sufficiently to remove them. This took about three-quarters of an hour and, as the influence of the cocaine was wearing off, he did not attempt to crush the second stone. The patient suffered no pain and was sent home and told to go to bed for forty-eight hours. For four weeks he treated him in the same manner and the patient brought several small fragments which had come away when he urinated. In July he repeated the operation, removing the second calculus, using a moderate-sized Keyes instrument and thought he had removed every fragment. The patient felt so well he did not go to bed as ordered. No reaction followed and in a week he returned to the Dispensary. His urine was clear, the intervals of urinating were normal, and he reported himself as being thoroughly well. On October 30th the patient returned saying that he was again suffering from pain and frequent urination and with cloudy urine. The searcher detected nothing, but with the evacuator and wash-bottle he obtained a small calculus. Since then the patient has been perfectly comfortable.

HARVARD MEDICAL SOCIETY OF NEW YORK CITY.

Stated Meeting, Held January 4, 1902.

The President, Howard Lilienthal, M.D., in the Chair.

Acquired Dextrocardia.—Dr. Charles Schram presented a patient whose heart is in the right cavity of his chest, apparently as the consequence of a prolonged process of tuberculous tissue destruction and consequent pulmonary contraction. The slow-running tuberculous process resulted in the so-called cirrhotic lung, which in retracting drew the heart with it, pleural and pericardial adhesions being the intermediary factors aiding in the displacement. The patient, twenty-four years of age, was born in Germany, but has been in New York since the age of five. He is a draughtsman of metal ornaments, who has never smoked and who uses stimulants only moderately and with his meals. He denies venereal history. Both his parents are partial deaf mutes and a brother is also a deaf mute. This is evidently an hereditary condition. There is, however, no tuberculous history in the family. At the age of four the patient had measles followed by inflammation of the lungs and some months later he developed scarlet fever. When eight years of age, he had another attack

of inflammation of the lungs, which lasted for some weeks and seems to have ended, according to the history, by lysis and not by crisis. He considers this to have been his last serious attack of illness. Five years ago he had acute articular rheumatism, the joint symptoms being confined to the right knee. He was in bed only for three days, but does not seem to have entirely gotten over his arthritic inflammatory condition. He has had joint pains in his knee ever since, whenever the weather is changeable.

Pulmonary Symptoms.—Ever since his attack of pneumonia some sixteen years ago he has had a tendency to recurrent bronchial attacks. There was scarcely a year that he was free from a series of these. They usually began in the late fall and lasted for some months. During the first weeks of the illness he coughed up thick, abundant and somewhat greenish-yellow material. The expectoration gradually diminished after a month or so and with it the inclination to cough, but in milder form his cough persisted during the whole winter. He has never expectorated blood. He never suffered from night-sweats and does not seem to have had the chilly sensations or the tired feeling that accompanies febrile conditions. During these bronchial attacks he had general physical and mental depression. Anorexia was usually marked, especially at the beginning. Since 1893, however, his attacks have not interfered with his studies or with his occupation, but up to within a year or two he has coughed more or less all the year round. At present, except for rheumatic pains in various joints for which he has come for treatment, he considers his health reasonably good. He has no dyspnea on exertion, except on climbing a number of stairs, when he also has moderate palpitation of the heart. This palpitation is felt on the right side. He dances regularly twice a month, takes great pleasure in the exercise, and finds no special inconvenience in it.

Physical Condition.—His chest is asymmetrical. The left side is deeper than the right, the right side inclining inward where the ribs join the middle third of the spine. There is some flattening below the clavicle. The right shoulder is lower than the left and the right scapula protrudes. The measurement of the left chest in the nipple line at the lower end of the scapula is sixteen inches. The measurement of the right chest at the same line is fifteen inches. The left chest moves more with inspiration than the right. Vocal fremitus is more marked on the right side than on the left, both in front and posteriorly. A diffuse wave-like impulse is noticeable in the fifth right intercostal space about two inches below the right nipple. It is not easy to see unless carefully looked for, but can be felt very well with the palm of the hand. The left chest is resonant, the right chest dull and in part flat in front and posteriorly. There is bronchial breathing, bronchophony and whispering bronchophony to confirm the other signs of pulmonary consolidation on the right side. On the left the respiratory murmur is puerile, showing that this lung is doing compensatory work. No râles are to be heard and the area of cardiac dulness is not determinable, because of the irregular percussion sounds that are obtained over the consolidated lung.

Heart Sounds.—The first sound of the heart seems loudest in the fifth intercostal space, two inches below and one inch to the left of the right nipple. The aortic sound is best heard in the second intercostal space two inches above the right nipple. The pulmonary second sound is best heard at the junction of the right border of the sternum and the third rib. There are no suspicious signs in the heart sounds and certainly no adventitious sounds. The cardiac rhythm is undisturbed and the general heart condition seems excellent. It seems clear that there is at present a cirrhotic lung resulting from repeated acute exacerbations of chronic pulmonitis with perhaps complicating pleuritis of probable tuberculous origin. The condition produced is so serious that it is a little hard to understand how they could have proceeded to the production of so much pathological change without inducing more serious symptoms. It is even a little surprising that the patient has survived them.

Etiology of Dextrocardia.—The late Dr. Loomis enumerated the mechanical elements concerned in producing dextrocardia as follows: There is, first, the restraining forces of the cardiac attachments at the base of the heart; second, the density and resistance of the surrounding tissues; third, the weight of the heart, and, fourth, pressure and traction. All of these elements seem to have been more or less concerned in the case presented. The retracting lung on the right served as the most important displacing factor. After this came the compensatory expansion of the left lung which not only displaced, but turned the heart on its long axis, the organ revolving on its basic attachments as a pivot. According to Osler the abdominal organs are transposed in 70 out of 78 cases of dextrocardia. As the dextrocardia in this case, however, was acquired late in life, there is not any transposition of abdominal viscera. The most interesting feature of the case is that, notwithstanding the great displacement of the heart, there are no symptoms referable to this fact in the patient's general condition. It is hard to understand how so important an organ can be pulled and twisted in the way that has evidently happened to this one and yet produce no annoyance that would call the patient's attention to the condition.

Question of Purulent Effusion.—In discussing Dr. Schram's case, Dr. Daniels said that it seems not impossible that there should have been in this case a purulent pleural effusion following one of the pneumonias and probably due to the pneumococcus. Such cases sometimes occur after children's pneumonias and are evacuated spontaneously through the lung. After these purulent effusions there is a marked tendency to the formation of adhesions and to contraction of the lung. This contraction is a much more active process than the so-called tuberculous cirrhosis of the lung and accounts much better for the serious alterations that have taken place in the tissues in this case. It seems doubtful if any mere cirrhotic tuberculous process would cause as much displacement as has occurred in this case. There is, moreover, in the history of the case an absence of the severe symptoms that would accompany so serious and important a tuberculous process as this. The patient had a tendency to bronchitis every winter, but this could be accounted for much better, perhaps, by the lowered vitality of his pulmonary tissues as a consequence of the lack of respiratory function than by a constantly active tuberculous process.

Displacements by Effusion.—In closing the discussion Dr. Schram said that displacements of the heart frequently occur because of pleural effusion. As is well known, however, these are not permanent. In the present case there is no sputum, the examination of which would disclose the presence of tubercle bacilli and make the diagnosis of pulmonary tuberculosis absolute. There is nothing in the history of the case that would actually demonstrate that a tuberculous process had been at work. This seems, however, the most reasonable explanation of the cirrhotic contractile condition that has ensued and has left one of the lungs almost completely useless for respiratory function.

Tuberculosis.—Dr. F. H. Daniels then read the paper of the evening. This will appear in a subsequent issue of the MEDICAL NEWS.

Hospital Infection.—In discussing Dr. Daniels'

paper, Dr. John B. Walker said that according to the provisions of the new charter for Greater New York no cases of tuberculosis are to be treated at Bellevue after February 1, 1902. This is welcome news to medical men, for in recent years there has come the realization of how serious the infective power of the presence of tubrculous patients may be, when other patients are in the susceptible, run-down condition, so usual in hospital practice. There is no doubt that tuberculosis has been communicated at Bellevue. Last year one of the resident physicians died of phthisis contracted in the Hospital and patients have frequently been admitted without any trace of pulmonary disease who have developed the affection before being long in the Hospital. There is special danger, of course, for patients already suffering from pulmonary affections.

Tuberculosis Communication.—Dr. Potter said that there is no doubt that tuberculosis is communicated at times to other hospital patients. He has himself seen a case of acute tabes enter the City Hospital without any trace of pulmonary affection and after four weeks suffer from slight hemorrhage. This was followed later by other symptoms of tuberculosis and a typical case of the disease developed. The dangers in hospitals are especially concerned with the dust in the wards. It is practically impossible to guard crowded hospital wards sufficiently in this matter to prevent danger of dust contamination. Flying particles bearing bacilli inevitably find their way into the air of the wards and are breathed in by susceptible patients. Many series of bacteriological observations have been made, showing the dangers in this matter. The hospital crowding and the mingling of patients, that render these dangers so serious, must, if possible, be prevented.

Successful Treatment of Tuberculosis.—Dr. Schram said that undoubtedly excellent results can be obtained in the treatment of tuberculosis. The disease is by no means the incurable one that it has been considered. The reported good results in the German sanatoria were at first looked upon with incredulity. The reported cures are, however, no matter of surprise to those who have visited these German institutions. The sanatoria for the tuberculous, for instance, in the Black Forest, are so situated as to provide a constant invitation for patients to go out into the open air. The level walks and the forest paths, with the inviting surroundings, are a constant source of pleasure for the healthy and the sick. There is no need for patients to be driven out, nor urged very much to be in the open air. Simple directions and the inviting surroundings soon do the necessary work and the good effects of being out in the open air almost constantly soon make themselves felt so much on the patient and in such a way as to need no further urging to secure their being out.

Tuberculous Houses.—Dr. Reynold W. Wilcox said that he had recently been engaged in the study of the charts of the Board of Health of New York City which are supposed to show that tuberculosis is worse in certain houses and that where the disease has occurred in a house other inmates are liable to be infected even though they may be no relative of the preceding patient and have had no intercourse with him. In a word, it is said that statistics show that houses become contaminated with the disease to such a degree as to be capable of conveying it to successive tenants. Dr. Wilcox has not found that this contention of the health authorities is borne out by the actual statistics. At times, it is true, deaths from tuberculosis in the families of successive tenants can be found, but after a series of deaths there will then be a cessation of the spell and the contamination, if any were ever present, seems to die out. In a word, it is not a law of disease, but a chance of statistics that seems to be at work in the matter. Dr. Wilcox said that the worst crowded houses in the city are those in which the Chinese live, and yet it is generally recognized that there is no special incidence of tuberculosis among the people of that nationality. It seems clear, then, that it is not crowding of itself, but the presence of other tuberculous patients in the crowded houses that causes rapid spread of the disease. In one case in which a series of deaths had taken place in a family in a crowded apartment house, Dr. Wilcox suggested removal to the upper floor of the same house. Five brothers and sisters had died in the family previously. Two sisters suffering from the disease at the time of the removal were cured and the remaining sister did not develop the disease.

Importance of Sunlight.—Undoubtedly, sunlight is a very important therapeutic agent in the treatment of tuberculosis. Dr. Wilcox's experience would seem to show that the upper floors of houses, because of their greater flooding with sunshine, are less liable to be fostering-places for the disease than the lower and darker floors. This curative property of sunlight and its prophylactic effect are not the discovery of the present generation, however. Dr. Bowditch of Boston, in 1850, insisted very much on the fact that sunlight was the most important natural agent for the treatment of tuberculosis and the only therapeutic agent available for the treatment of all forms of the disease and sure to do them all good.

Tuberculous Peritonitis.—Dr. William R. Coley said that the main purpose at the present moment must be to teach the laity that tuberculosis is not only not incurable, but that the disease if placed under proper conditions has a definite tendency to cure. Some very interesting reflections on this matter are to be found in the history of surgical intervention in cases of tuberculous peritonitis. Professor Koenig in 1884 reported cure of peritoneal tuberculosis by simple abdominal incision. Since then surgeons throughout the world have been performing laparotomy for the condition. Most of them have reported many good results. A recent article by Fenger in the "Annals of Surgery" reviews the benefit of surgical intervention in these cases. After following cases for a number of years, some of them operated upon and some of them left untouched, Fenger concludes that absolutely no good has been done by the operation. A similar conclusion has been forming in the minds of many surgeons for some time. Fenger says that surgeons may be thankful for the justifiable opportunity that has been afforded them to examine tuberculous processes on the peritoneum by direct inspection, but they must now hand these cases back to the physician.

At Home or Abroad.—Dr. Howard Lilienthal said that it is always a sin to send tuberculous patients away from home unless they can be sure to be at least as comfortable in their new quarters as they were at home. This is, of course, not true in the great majority of cases. To suggest to patients in ordinary circumstances that they must leave home is usually to make them dissatisfied, but not to do them any good. Now that we have come to realize that climate of itself means much less in the treatment of tuberculosis than was formerly thought, it becomes still more clear that patients must not be advised to leave home without a thorough consideration of all the circumstances of their cases.

Distribution of Tuberculosis.—In closing the discussion Dr. Daniels said that there are many ways that ordinarily pass unnoticed in which seeds of infection may be carried from place to place. Flies, for instance, have been known to carry virulent bacilli from one place to another. Such material as tuberculous sputum is apt

to be attractive to flies. They light on it and then carry on their legs to neighboring food material extremely dangerous germs. Dr. Daniels finds it difficult to understand that tuberculosis should die out in tenements where it has once secured a foothold. It is possible, however, that a given variety of tubercle bacillus may, after a certain time and under a certain condition, fail in its virulence. Such an experience is not unusual in the laboratory study of tuberculosis. It seems much more likely, however, that the new families that move in and fail to have cases of tuberculosis are specially resistant to the disease and that this accounts for the gap in the statistics.

BOOK REVIEWS.

AN EXPERIMENTAL AND CLINICAL RESEARCH INTO CERTAIN PROBLEMS RELATING TO SURGICAL OPERATIONS. An Essay Awarded the Alvarenga Prize for 1901 by the College of Physicians of Philadelphia. By GEORGE W. CRILE, A.M., M.D., Ph.D., Professor of Clinical Surgery, Medical Department, Western Reserve University; Surgeon to St. Alexis Hospital; Associate Surgeon to Lake Street Hospital, Cleveland. J. B. Lippincott Company, Philadelphia.

THIS book for directness and brevity is certainly a profitable addition to any medical library. As its title indicates, it is a report of a long series of experiments followed by clinical observations into clinical operative problems.

In an excellent and scientifically accurate manner it treats first of the methods of annotation and investigation, so that the reader is fully aware of the basis of the results reached. The problems, the solution of which is attempted, comprise the following: On the effect of severing, and of mechanical irritating the vagi; the research into the effect of intravenous injection of saline solution; the physiologic action of cocaine and eucaine; the effect of temporary closure of carotid arteries. Each of these problems is handled, first, with preliminary remarks and a review of literature, next, with an account of experiments followed by a summary of experimental evidence, and, finally, with a statement of the clinical application of the results. Thus, it will be seen that no pains have been spared to weigh each question step by step until a definite conclusion was reached.

A MANUAL OF THE PRACTICE OF MEDICINE. By FREDERICK TAYLOR, M.D., F.R.C.P., Senior Physician to and Lecturer on Medicine at Guy's Hospital, London. Sixth Edition. P. Blakiston's Son & Co., Philadelphia.

THIS is the sixth edition of Dr. Taylor's work. The preface to the first edition was written in January, 1890. It has evidently won for itself many friends in these eleven years. The secret of the popularity of Dr. Taylor's book seems to be its thoroughly practical character and its inclusion in comparatively small space of an excellent digest of what is useful in medicine. In the first edition Dr. Taylor announced his intention of devoting most attention to the description of symptoms, to diagnosis, to prognosis and to treatment, feeling that they are the divisions of the subject which answered to the idea of practice. Etiology and pathology are also considered, but the latter is not so fully dealt with as in works devoted especially to it.

In the present edition the author announces that the subjects most fully revised are malaria, plague, encephalitis, leucemia and the examination of the blood. Certain subjects hitherto untreated in the work find a place in this edition. Among them are the interesting titles, myasthenia gravis, paramyoclonus multiplex, acroparesthesia and acrodactylia, and polyorromenitis. This last term is a synonym for polyserositis. Both are names given to the condition of simultaneous inflammation of two or more of the four great serous membranes—pericardium, pleuræ and peritoneum—an association to which attention has been especially called of late by Italian writers. The book is printed in England and so, perhaps, the omission of some of these new terms from the index should not be laid at the door of the American publishers.

THE STANDARD MEDICAL MANUAL. A Handbook of Practical Medicine. By ALFRED S. BURDICK, M.D., Editor of Medical Standard; Junior Professor of Practice in the Illinois Medical College. G. P. Englehard & Co., Chicago.

THIS is a very handy reference book of practical medicine with the subjects arranged alphabetically, thus facilitating ready consultation. It is not ambitious, for its name, "standard" applies only to the fact that its author is the editor of the "Medical Standard" and that the book is issued in connection with the medical journal. The work is of very practical character and is calculated to be eminently helpful, especially to the busy general practitioner who does not want a treatise, but suggestive points at a moment's notice. The volume is very presentable in appearance and will doubtless find a place on many consultation shelves, not among the learned tomes that collect dust and are opened a few times a year, but among the books that are constantly at hand for ready reference.

TYPHOID FEVER AND TYPHUS FEVER. By Dr. H. CURSCHMANN, Professor of Medicine, Leipzig. Edited with Additions by WILLIAM OSLER, M.D., Professor of the Principles and Practice of Medicine, Johns Hopkins University, Baltimore, Md. Authorized Translation from the German, Under the Editorial Supervision of ALFRED STENGEL, M.D., Professor of Clinical Medicine in the University of Pennsylvania. W. B. Saunders and Company, Philadelphia and London.

DR. STENGEL'S declaration in the preface to the first volume of the translation of the Nothnagel series that the excellence of the monographs issued under the editorship of Professor Nothnagel has been recognized by all who are sufficiently familiar with German to read his works will be re-echoed by all students of medicine. They will also be glad to think that the opportunity is to be provided even for those who do not read German to enjoy and profit by the greatest of modern encyclopedias of medicine.

The best index that the Nothnagel series is to be worthily done into English is afforded by the fact that this first volume has for its editor Professor Osler and that he has been encouraged to make such additions to Professor Curschmann's monograph as will bring the subject up-to-date and make it more helpfully practical for American physicians. For those who know Professor Osler's thoroughness there will be no need to add that his work as editor has been taken seriously and that some of the additions constitute important features of the American translation. If this volume is a fair sample of those that are to follow, then the English-speaking medical profession may well be congratulated on the fact that editors and publishers are a unit in the effort to give them what is best and latest in medicine in this work.

Some of Professor Osler's additions made with Professor Curschmann's consent deserve to be mentioned. The chapter on the bacteriology of typhoid fever has

been thoroughly revised and new material added. The distribution of the typhoid bacilli, especially in the urine, in the rose spots, and in the blood, has been noted. The literature on the localized lesions due to the bacillus, particularly of the bones, meninges, heart, pleura, bladder, and so forth, has been carefully revised and brought up to date. Thayer's exhaustive study of the state of the blood has been utilized. The surgical complications of the disease have been very fully considered with the aid of Keen's monograph. The chapter on perforation and peritonitis has been rewritten, as has also the section on the hepatic complications of typhoid fever.

These constitute only some of the American additions. Professor Curschmann's monograph originally was a most exhaustive study of typhoid fever, thoroughly practical in character. The additions have been necessitated by work done since Curschmann's original publication and by so much the American surpasses the German edition. It is evident that no effort has been spared by the American editor to let nothing pass that might be of practical interest in the recent literature of typhoid fever.

The publishers' work in the volume has been very commendably done. The colored plates illustrating the characteristic eruptions of typhoid and typhus fever bring out very well both what is similar and what is differential in the two exanthems. This is manifestly the first volume of what is to form a striking contribution to medical literature in English. The publishers' plan of selling each volume separately and not insisting on a subscription to the whole work in order to obtain volumes of interest is especially to be commended. Medical publishing in America has reached the place where subscriptions are not necessary to insure that large medical works shall afford due returns.

PHOTOTHERAPY. By Prof. NIELS R. FINSEN of Copenhagen. Translated from the German Edition and with an Appendix on the Light Treatment of Lupus by JAMES H. SEQUEIRA, M.D., Lond., M.R.C.P. Edward Arnold, London.

THIS work consists of Finsen's three papers published at different times on "The Chemical Rays of Light and Smallpox," "Light as a Stimulant," and "The Treatment of Lupus Vulgaris by Concentrated Chemical Rays."

Prof. Finsen's work is almost too well known to need much comment. Although the Nobel prize was not, as was prematurely announced, conferred on him, his discoveries in phototherapy are some of the most practical advances made in medicine during this last decade.

In these three papers can be seen the gradual development of his ideas with regard to light as a therapeutic agent. At first, in smallpox his investigations were tentative, later came the assurance that in light there was a great remedial agent. The book represents a landmark in medicine and doubtless will be one of the little books referred to by future generations as an original work well worthy of preservation.

A MANUAL OF CLINICAL LABORATORY METHODS. By JOHN B. NICHOLS, M.D., in charge of Clinical Laboratory, Garfield Hospital; Hematologist to Columbian University Hospital; Professor of Normal Histology in Medical Department of Columbian University, Washington, D. C. William Wood & Co., New York.

THE importance of laboratory methods as aids in the diagnosis of disease has called into the field an army of workers whose investigations, being published in numberless medical journals, are not readily available for the student and general practitioner. Books which present such material in a form for ready reference, with the proper selection of those methods which have stood the proof of clinical tests, are therefore of value.

The work in question is a book of this class and its purpose can best be stated in the words of the preface: "To present in practical and systematic form the most important laboratory methods employed in clinical medicine. Covering established methods, it cannot profess to present much that is new or original, or to cover a field not already occupied, but must base its *raison d'être* in the collection of numerous technical procedures within a small compass and presentation of the subject in a manner convenient and clear to students and practitioners of human medicine."

A perusal of its contents shows that these ideas have been well carried out. The subject-matter is condensed, but this does not prevent the mention of details that are either new or necessary to the general understanding of the topic in question. The author includes in his book the consideration of the blood and the technic of its examination, the stomach and its contents, the feces and intestinal discharges, the sputum, and the urine. Pathological fluids, calculi, and parasites are also treated and chapters are devoted to clinical bacteriology and autopsy methods. In each examination the well-recognized methods are arranged in such a manner as to form a good working manual. The one fault to be found in the make-up of the book is its lack of sufficient illustrations, which in a work of this kind are most essential.

THE MENTAL FUNCTIONS OF THE BRAIN. By BERNARD HOLLANDER, M.D., Freiburg, M.R.C.S., L.R.C.P., London. G. P. Putnam's Sons, New York and London.

THIS is an interesting work by one who has made a wide search of literature. Many hundreds of clinical histories are collected and conclusions reached, which if not entirely sound, are suggestive and almost stimulating.

Had the author been less disposed to find fault with the honest, although perhaps incorrect, work of others, we should feel more tolerant toward the attitude he himself would adopt, but there is so manifest an air of special pleading of his own that one is less liable to pay attention to the conclusions there perhaps is warranted.

Phrenology in its modern dress will need a more logical and modest exponent if it would expect a hearing.

BOOKS RECEIVED.

The MEDICAL NEWS *acknowledges the receipt of the following new publications. Reviews of those possessing special interest for the readers of the* MEDICAL NEWS *will shortly appear.*

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS. Vol. I. GENERAL MEDICINE. By Dr. Frank Billings. 12mo, 270 pages. The Year-Book Publishers, Chicago.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS. Vol. II. GENERAL SURGERY. By Dr. J. B. Murphy. 12mo, 515 pages. The Year-Book Publishers, Chicago.

STUDIES IN PHYSIOLOGICAL CHEMISTRY. Reprints of Studies from Sheffield Scientific School. 1897-1900. Edited by Dr. R. H. Chittenden. 8vo, 424 pages. Charles Scribner's Sons, New York.